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The Present Condition of and Potential Uses for Abandoned Public School Buildings in Kentucky

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THE PRESENT CONDITION OF AND POTENTIAL USES FOR ABANDONED PUBLIC SCHOOL BUILDINGS IN KENTUCKY

A Dissertation

Presented to

the Faculty of the Department of Supervision and Administration

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In Partial Fulfillment

of the Requirements for the Degree

Doctor of Education

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by

Warren Parker Tiller

August 1981

APPROVAL

This is to certify that the Advanced Graduate Committee of

WARREN PARKER TILLER

met on the

15th day of June, 1981.

The committee read and examined his dissertation, supervised his defense of it in an oral examination, and decided to recommend that his study be submitted to the Graduate Council and the Dean of the School of Graduate Studies in partial fulfillment of the requirements for the degree Doctor of Education.

Chairman, Advanced Graduate Committee

Signed in behalf of the Graduate School

Dean, School of Graduate Studies

Abstract

THE PRESENT CONDITION OF AND POTENTIAL USES FOR ABANDONED PUBLIC SCHOOL BUILDINGS IN KENTUCKY

by

Warren Parker Tiller

The purpose of this study was to investigate school building utilization in Kentucky and make appropriate recommendations for efficient procedural guidelines in the decision-making process for future utilization.

The study was presented in five parts. First, related literature was searched for criteria for guidelines for building utilization. Second, a survey instrument was mailed to the 181 school superintendents of Kentucky to determine building utilization. One hundred percent were returned. Third, one school district with abandoned buildings was examined to determine utilization and to project relative costs of retaining the buildings compared to replacing them when needed. Fourth, based on the literature, the state-wide survey, and the illustrative existing situation, a set of procedural guidelines was developed and mailed to a jury of nine experts in the field of school building planning. The jury rank ordered the guidelines with 100 percent return. Fifth, based on the findings of the study, recommendations were made for the efficient utilization of school buildings.

The following guidelines for the decision-making process for future school building utilization were considered significant.

1. Population trends and shifts
2. Birth data
3. Population Projections
4. Long range planning in all educational areas
5. Bonding potential
6. Migration
7. Future building cost as compared to remodeling cost of abandoned school buildings
8. Cost of remodeling abandoned school buildings as potential school facilities to accomodate projected population increases

The following recommendations are made for the efficient utilization of public school buildings:

1. Coordinated planning of educational facilities with public and private agencies is needed.
2. Enrollment projections should include population characteristics, land utilization, birth data, migration, and employment trends.
3. Abandoned school buildings should be maintained for community use with possibilities of returning them to the mainstream of public education.
4. Careful study should be made by the school districts, involving the general public, when seeking alternative uses for vacant or unused facilities.
5. The State Department of Education should study the possibility of permitting capital outlay funds to be used for renovation of abandoned school buildings.
6. Additional research is needed to determine the process school districts should follow in dealing with abandoned school buildings.

ACKNOWLEDGMENTS

The writer is indeed grateful to many individuals for their contributions to this study. Particular appreciation is expressed to Dr. William Evernden, committee chairman, for his invaluable assistance and guidance. Appreciation is extended to Dr. J. Howard Bowers, Dr. Emmett Essin, Dr. William Fowler, and Dr. Albert C. Hamit, advisory committee, for their thoughtful and constructive criticism.

Grateful appreciation is expressed to the memory of my father, Rufus Tiller, who along with my mother, Orpha Tiller, gave me a desire for knowledge and a love for others.

Finally, to Ann, my wife, and our children, Trevon and Bethany Ann, special appreciation is expressed for their encouragement and for their sacrifices during the completion of the study.

CONTENTS

Chapter Page

Chapter Page

LIST OF TABLES

Table Page

LIST OF FIGURES

Chapter 1

INTRODUCTION

The cities and local school districts in Kentucky and throughout the nation invested billions of dollars in facilities to house educational programs. As Harold B. Gore, President of the Educational Facilities Laboratories, reported, "For the first time, the American school system faces long-range, substantial enrollment decline. One immediate question, in view of this decline, is what to do with the resultant empty space in the school building."[1]

James Cass identified the three factors that determine the future school-age population of any community: the number of women of childbearing age (15 to 44), the fertility or birthrate (the number of births per thousand women of age 15 to 44), and the mobility of the population.[2] All are human factors and hence highly unpredictable. However, there were some indications that the decline would continue into the 1980s. The national birthrate for 1973 was 1.9 children per family, the lowest rate in history.[3]

The National Center for Educational Statistics' projection of school population showed enrollments in elementary and secondary schools

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[1]Harold B. Gore, "Declining Enrollment and Options for Unused Space," NASSP Bulletin, 60:92, May, 1976.

[2]James Cass, "Recycling Surplus School Buildings," Saturday Review, 2:51, June 28, 1975.

[3]Cass, p. 51.

dropping from 45 million in 1974 to 41 million in 1983. Elementary enrollments were expected to drop by about 1.6 million to a low of 24.2 million in 1970, then gain 800,000 by 1983. Secondary enrollments were expected to decline more sharply, from 19.2 million in 1974 to 16 million in 1983.[4]

Enrollments declined, schools closed, and in many places all that remained were vacant buildings that served as painful monuments to a neighborhood's demise. School people complained for years about not having enough space for special programs and services. Vacant buildings resulting from enrollment declines provide opportunities to use vacant spaces for those purposes, as well as a variety of other uses that benefit students and the rest of the community.

The Problem

Statement of the Problem

The problem of this study was to analyze school building utilization in Kentucky and make appropriate recommendations for efficient procedural guidelines in the decision-making process for future utilization.

Subproblem One

To identify practical utilization of school facilities through a review of literature with special emphasis on utilization of abandoned facilities

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[4]Educational Facilities Laboratories, "Reusing Empty Schools," American School and University, 49:22, December, 1976.

Subproblem Two

To determine the number and location of public school buildings in the state of Kentucky which were abandoned during the period 1976-80

Subproblem Three

To determine the number and location of school buildings that were only partially used for educational purposes

Subproblem Four

To identify those buildings that were scheduled to be abandoned or phased out of use within the subsequent two years (1980-1982)

Subproblem Five

To determine the value of abandoned school property

Subproblem Six

To examine an existing situation in which a school building had been abandoned, and to project relative costs of retaining the building compared to replacing it when needed

Subproblem Seven

Based on the literature, the state-wide survey, and the illustrative existing situation, to develop a set of procedural guidelines to assist school administrators and boards of education in the decision making process for future utilization

Subproblem Eight

To validate the procedural guidelines by the jury process, and to rank order them on the basis of that validation

Significance of the Study

The total value of school property in the United States in 1975 exceeded twenty billion dollars. This tremendous investment must be safeguarded and carefully identified with a system of property accounting.[5]

Declining enrollments created serious problems in a variety of areas, including personnel, finance, and public relations; but unfortunately most school districts did not have a comprehensive program to analyze all aspects of the situation. Even in those districts where there had been long-range planning the primary concern was whether or not to close a building, not how to use surplus space.[6]

Buildings were abandoned by school districts for various reasons, including district plans to end racial imbalance, and the population shift from urban to suburban communities. Others were abandoned because they were condemned for a variety of reasons or because of consolidation.

The location and physical condition of millions of dollars worth of abandoned school buildings was identified by this study. The information from this study can be useful to each school district, the State Department of Education, and also to legislators in their attempt to provide quality education in the state of Kentucky.

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[5]Stephen J. Knezevich, Administration of Public Education (New York: Harper and Row, 1975), 555.

[6]Robert F. Savitt, "Utilization of Surplus School Buildings," NASSP Bulletin, 61:31, March, 1977.

Limitations of the Study

The study was limited to the 181 public school districts in Kentucky as listed in the Kentucky School Directory, 1979-1980. Potential uses for abandoned school facilities in Kentucky were limited to one illustration of one selected school district. The review of literature was limited to necessary historical data and to information necessary for developing the guidelines. Solutions requiring extensive plant modifications or large expenditures were omitted.

Basic Assumptions

The following basic assumptions were made:

1. The inefficient utilization of educational facilities is substantial.

2. Greater use of educational facilities is necessary for economic and humanitarian benefits.

3. Administrators need concise, practical information concerning efficient utilization of school facilities.

4. Through a review of literature and a survey of the 181 school districts of Kentucky, guidelines for efficient use of abandoned school buildings could be compiled.

Definitions of Terms

Many of the terms used in this study need no explanation. Others are explained as used; however, careful definition of the following seemed appropriate for the study.

Abandonment of Property

The abandonment of property is the act of leaving or giving up the use of a school building or other property.[7]

Accountability

Accountability is the identification of responsibility for satisfying the entire range of goals and objectives for an organization as well as for how resources are allocated and utilized for such ends.[8]

Building Construction, Type of

There are five types of school and college buildings, defined as follows: type A, constructed of fire-resistive materials in gross structure and interior: type B, C, and D, progressively less fire-resistive; type E, constructed chiefly of wood.[9]

Building Rehabilitation

Building rehabilitation is to restore a building to its former state. The replacement parts and service systems are similar to those originally installed in the building.[10]

Building, useful life of School

The useful life of a school building is the number of years it is estimated a school building can be used for public school purposes

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[7]Carter V. Good, ed. Dictionary of Education, (3d ed.;New York: McGraw-Hill, 1973), p. 1.

[8]Stephen J. Knezevich, Administration of Public Education (New York: Harper and Row, 1975), p. 599.

[9]Good, p. 73.

[10]Basil Castaldi, Educational Facilities: Planning, Remodeling, and Management (Boston: Allyn and Bacon, 1977), p. 323.

before becoming unfit for use because of deterioration or obsolescence.[11]

Criteria

The standards against which a person, a group, a procedure, or an instrument may be checked.[12]

Current Maintenance Cost

The current maintenance cost is the amount of money expended to keep facilities in repair.[13]

Guideline

An indicator or outline of future policy or conduct.[14]

Modernization

Modernization is that process whereby an existing school building is brought up-to-date structurally and educationally.[15]

Remodeling

Remodeling is a reshaping of existing spaces within a school building. Remodeling occurs whenever existing partitions are relocated or whenever new partitions are installed in a school building.[16]

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[11]Good., p. 73.

[12]Good, p. 220.

[13]Good, p. 143.

[14]Good, p. 273.

[15]Castaldi, p. 324.

[16]Castaldi, p. 324.

Structurally Sound Building

A structurally sound building meets the safety standards established by the state building inspector's code for use as a school facility.[17]

Value of School Property

The value of school property is an amount representing the worth of buildings, equipment, and grounds determined by some measure of worth, such as original cost, original cost less depreciation, replacement cost, or assessed worth.[18]

Procedures

In order to analyze school building utilization in Kentucky, a review of the literature pertaining to the problem was conducted. A survey instrument based on the findings in the literature was developed. Distribution of the survey instrument to the 181 public school superintendents was conducted with a 100 percent response. Analysis and interpretation of the data were then made and findings recorded.

Organization of the Study

This study was organized into seven chapters. Chapter 1 contains an introduction to the study, statement of the problem, significance of the study, limitations of the study, basic assumptions, definitions of terms, procedures, and organization of the study.

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[17]Castaldi, p. 130.

[18]Good, p. 637.

The literature related to the problem is reviewed in Chapter 2.

The procedures by which the study was conducted are presented in Chapter 3.

The data collected are presented in Chapter 4, including an analysis of the data and the findings of the study. Chapter 5 contains a selected illustration of an existing situation. Chapter 6 contains the validation of the procedural guidelines by the jury process. Chapter 7 includes a summary, the conclusions, and the recommendations.

Chapter 2

REVIEW OF RELATED LITERATURE

The review of literature is presented under six principal captions: (1) Population Shift and Migration, (2) School Bond Issue, (3) Kentucky Legislation, (4) New Life for Old Schools, (5) Abandon or Build, and (6) School Building Accountability.

Population Shift and Migration

America is a nation of movers, and since it is also a society that values its freedoms, it neither directly controls the movement of people nor requires registration for a record of their comings and goings. Alertness and vigilance are the essential ingredients for anticipating the impact of the movement of people on local school enrollments. This movement may not cause shrinkage or it may only dampen the rate of decline in school districts. For some, it will exacerbate the problem, while for many districts the combination of fewer births plus migration will yield a net loss of enrollment.[1]

According to a recent survey by the Urban Institute, most northern states are either stable in population or out-migrant. The so-called sun-belt--the crescent of states from North Carolina around to Texas,

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[1]Educational Facilities Laboratories, "Reusing Empty Schools," American School and University, December, 1976, p. 23.

New Mexico, and Arizona--is burgeoning.[2]

Population shifts have become a particularly agonizing problem for city school planners. It is not unusual for city schools to have a turnover of approximately one-half their student body in one school year. Nor is it unusual for a new school to be overcrowded the day it opens because of a sudden influx of population into a neighborhood. This out-flow will often deplete another school, perhaps only five to ten years old, of a large portion of its enrollment.[3]

Apathy of the public toward inadequacy of school-plants is related to a lack of understanding of the importance of the plant to the educational process. All too often the schoolhouse is considered merely a shelter. Belatedly, vociferous expressions of dissatisfaction with antiquated school-plants in the core city stimulate interest in school-plant improvement. The measure of adequacy has become more than structural soundness. The cost of replacing these functionally obsolete, but structurally defensible plants will be tremendous and will require state and federal, as well as local financial contributions.[4]

There was an average construction of over 70,000 classrooms per year during the 1960's. Most of the new schools in the 1950's were elementary school centers. In the 1960's nearly twice as many new secondary school plants were built as new elementary school plants.

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[2]Harold B. Gore, "Declining Enrollment and Options for Unused Spaces," NASSP Bulletin, May 1976, p. 92.

[3]EFL, The Schoolhouse in the City (New York: Educational Facilities Laboratories, 1966), p. 8.

[4]Stephen J. Knezevich, Administration of Public Education (New York: Harper and Row, 1975), p. 564.

The number of classrooms abandoned each year ranged from a low of 16,400 to a high of 24,000. Recent changes in enrollments plus the feverish construction of the 1950's and 60's suggested a cooling off of classroom construction.[5]

Declining enrollment plus the sharply increased costs of maintaining a school building led to growing awareness of the value of using that space for more than the limited role it traditionally played in the academic life of the younger children in the neighborhood. On the average, schools were used only 180 days each year, about eight hours each day.[6]

The United States Office of Education conceded that the decline in elementary school enrollment, which began in the 1960's, might start to swing back upward in the 80's.[7]

One problem faced by public school boards was what to do with unused school buildings? Should the buildings be sold or mothballed? Imagine the community uproar ten years from now if, because of a population increase, the board had to go back to the voters for a bond issue for a new building at what would easily be ten to twenty times the price of the one disposed of on the current market.[8] According to the Economic Indicators, the average cost of all goods and services

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[5]Knezevich, p. 562.

[6]Andree Brooks, "Sharing: A Solution to Excess Space," Teacher, February, 1979, p. 59.

[7]Brooks, p. 59.

[8]M. E. Hickey, "Here's How to Prevent Closed Schools From Becoming Empty Buildings," The American School Board Journal, 166:28, February, 1979.

rose from 1.15 in 1970[9] to 2.55 for December, 1980,[10] or an increase of 140 percent in the ten year period.

School Bond Issue

In 1978, William Keough noted that school districts dealt with two major phenomena: declining enrollments and a reaction against property taxes to pay for half empty schools. The economics of the time were such that people could not move out to the farm. Older parents continued to live in first and second-ring suburbs, the areas where enrollment declines were felt most severely.[11] The school debt became part of the public state and local government debt. Nationally, the public state and local government debt totalled about ten times the 1945 debt of $16.6 billion. The increase in private debt since the end of World War II exceeded the increase in the same public debt for the same period.[12] The fraction of Gross National Product allocated to education doubled in the period from 1950 to 1975, to between 7.5 percent and 8 percent of the total. Combined domestic governmental expenditures exceeded 25 percent of the GNP, and all public expenditures,

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[9]U. S. Superintendent of Documents, Economic Indicators (95th Congress, 1st Session; Washington: Government Printing Office, January, 1977), pp. 23-24.

[10]U. S. Superintendent of Documents, Economic Indicators (96th Congress, 2nd Session; Washington: Government Printing Office, December, 1980), pp. 23-24.

[11]Stanley Elam, ed. "Ways of Dealing with Enrollment Decline," Phi Delta Kappan, 60:1:20, September, 1978.

[12]Knezevich, p. 553.

including defense, made up about 33 percent of the total.[13]

Tim Gillespie pointed out that in 1945 there were 160,000 American public elementary schools. In 1978, the figure was just above 63,000.[14] Gillespie further stated:

> What disturbs educators are the problems behind those statistics. When communities are forced to close schools, repercussions go far beyond the inconvenience to the children and parents involved. The community itself is left with an abandoned shell of a once useful building . . . often the abandonment results in a reduction in the community's property values.[15]

Loss of property valuation limits a community's ability to issue bonds for capital improvements. Knezevich pointed out that limitations on indebtedness, or restrictions on the total school bond that could be issued, varied among states. Debt limits, as percentages of assessed value of taxable property, ranged from 2 percent in Indiana and Kentucky to 50 percent for certain school districts in Minnesota.[16]

School bonds must have the approval of the electorate before they can be issued. During the early part of the 1960's, 72 percent or more of the bond issues were approved in various elections across the country. In the late 1960's, the success rate dropped so that in 1969-1970 only 53.2 percent of bond elections were passed by voters. Thus, only 46.7 percent of school bond issues were approved in 1970-1971 and 47.0 percent in 1971-1972. John W. Maguire observed that success in bond

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[13]Robert H. McBride, "Where Will the Money Come From? Financing Education through 1980-81," Phi Delta Kappan, 58:248, November, 1976.

[14]Tim Gillespie, "The Question: To Raze or to Restore," American Education, 14:6, August,September, 1978.

[15]Gillespie, p. 6.

[16]Knezevich, p. 554.

and millage elections "was associated with absence of controversy and low voter turnout."[17]

Kentucky Legislation

Those portions of the Kentucky Revised Statutes, Annotated which established purposes and procedures for acquiring school property and conveying property not used for school purposes were found in Chapter 162.

Joint agreement with public agency(ies) for development and maintenance on school property of recreational facilities for school and community purposes were found in KRS 160.293 and were as follows:

> Any statute to the contrary notwithstanding, upon the recommendation of the superintendent of public instruction, the state board for elementary and secondary education may adopt regulations authorizing a local board of education to enter into an agreement with a public agency for the purpose of developing and maintaining on school property, recreational facilities for school and community purposes in accordance with the following standards:
>
> (1) The property must be used in such a manner and at such time so that there will be no interference with school activities.
>
> (2) The control and management of this property shall be in accordance with regulations adopted hereunder by the state board for elementary and secondary education.
>
> (3) All agreements must have the prior approval of the superintendent of public instruction and the attorney general.
>
> (4) Any agreement executed herein shall not be considered an indebtedness within the meaning of sections 157 and 158 of the state constitution.[18]

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[17]John W. Maguire, "Political Techniques in School Bond and Millage Elections," School and Society, December, 1971, pp. 514-515.

[18]Kentucky Superintendent of Public Instruction, School Laws of Kentucky (Frankfort, Kentucky: Kentucky Department of Education, 1978), p. 234.

Relevant sections from the statute were as follows:

162.010 Title to school property[19]

162.030 Condemnation of property for school purposes[20]

162.050 Use of school property for public purposes[21]

162.060 Plans for school buildings to be approved[22]

162.080 Bond issues for school sites and buildings; authorization; election[23]

162.120 Independent district in city may convey property to city to provide buildings[24]

162.140 Lease of building by board of education; terms; amount of rent[25]

162.160 Plans and specifications for buildings; board of education must offer to lease building before construction contract is made[26]

162.310 State educational institution may convey building site[27]

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[19]Kentucky Superintendent of Public Instruction, pp. 302-303.

[20]Kentucky Superintendent of Public Instruction, p. 304.

[21]Kentucky Superintendent of Public Instruction, p. 305.

[22]Kentucky Superintendent of Public Instruction, pp. 305-306.

[23]Kentucky Superintendent of Public Instruction, pp. 307-308.

[24]Kentucky Superintendent of Public Instruction, pp. 309-310.

[25]Kentucky Superintendent of Public Instruction, pp. 310-311.

[26]Kentucky Superintendent of Public Instruction, p. 311.

[27]Kentucky Superintendent of Public Instruction, pp. 314-315.

New Life For Old Schools

The school board's first step in determining what to do with closed schools was to identify potential alternative uses for the buildings either by the system or by the community. In addition to the necessity of providing a maximum return to the public from the investment of tax funds that the school represented, there was an equally important need: retention of public land for public use, for schools or some other community purpose. In communities where land use was near the saturation point the expense of obtaining additional public land for any purpose was high and seemed destined to increase astronomically in the future. Hickey pointed out that cooperative land use planning between governmental bodies, particularly school boards and municipalities, could help ensure a continued return on the public investment long after the need for the school per se had ended.[28]

Many communities had two concurrent and inter-related problems 1) surplus school space and 2) a demand to improve community facilities. The "community school concept" could utilize existing school buildings to provide a broader range of facilities to serve all the citizens.

The main advantage of the community school was the fact that more people were involved and supportive. The community school promoted the idea of a three-generation neighborhood with a stronger sense of community and continuity.[29]

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[28]Hickey, p. 28.

[29]C. William Brubaker, "What To Do With Surplus School Space," American School and University, 52:40-41, February, 1980.

William Brubaker further stated that the community school idea seemed to be particularly appropriate for the age of energy conservation. First, communities should resist any tendency to eliminate smaller in favor of larger schools, since students in the future would likely walk to school. Second, to avoid over dependence on the automobile, convenient community centers would be the logical place for all health, education and welfare services, and for cultural and recreational activities.[30]

When a school building is no longer needed for education, due to declining enrollment or construction of a new facility, it may well be a valuable building for other uses. Other community agencies can recycle it to create a municipal building, community center or art center; a developer can remodel it to create apartments, an office building or a senior citizens' center. For example:

> In Evanston, Ill., the city hall is now housed in a recycled Catholic high school, and Noyes Elementary School has become the Noyes Cultural Arts Center.
>
> In the northeastern part of the United States, many schools have been successfully converted to apartments.
>
> A number of schools in California have been converted into shopping centers.
>
> Cumberland School, built in the 1890 decade in Dallas was restored as an oil drilling company corporate headquarters.[31]

The Community Development Block Grant Program, authorized under the Housing and Community Development Act of 1974, as amended, made block grants to cities of over 50,000 population and to counties over 200,000 population. These in turn made funds available to school

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[30]Brubaker, p. 41.

[31]Brubaker, pp. 38-39.

districts to convert unused school buildings into centers for senior citizens, neighborhood and activities services or recreation, smaller communities may obtain funds for similar purposes by applying directly to HUD.[32]

Abandon or Build

There seemed to be a natural tendency among many citizens to favor modernization over replacement for two reasons. They felt a sense of loyalty to the grand old school that served them and their predecessors well in the past. There seemed to be a common belief that modernization automatically meant greater economy because part of the old structure was preserved.[33]

The general formula for modernization of old school buildings as stated by Basil Castaldi was as follows:

Modernization was justifiable if:

$$\frac{(C_E + C_H + C_S)}{(L_M)\ (I_A)} < \frac{R}{L_R}$$

Where: C_E = Total cost of educational improvements

C_H = Total cost for improvements in healthfulness

C_S = Cost for safety improvements

L_m = Estimated useful life of modernized school

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[32]Gillespie, p. 10.

[33]Basil Castaldi, Educational Facilities: Planning, Remodeling, and Management (Boston: Allyn and Bacon, 1977), p. 328.

I_A = Estimated index of educational adequacy

R = Replacement cost of new school

L_R = Estimated life of replacement school[34]

Where budgets were skimpy, existing facilities could be upgraded on an ongoing basis over a period of years. But, if this approach was to be taken in the face of shrinking funds and the growing trend toward state-controlled school construction budgets, it was necessary to have a long-range plan in mind for modernization throughout the entire district.[35]

Conversion of school facilities within the educational system may be temporary. Cyril G. Sargent identified one interim use for a closed school housing students whose home school was being remodeled. This avoided double sessions or using portables at nearby schools and allowed the student body to remain a cohesive unit during the upheaval.[36]

According to Castaldi, before a long-range building program can be developed, the most effective use or uses of existing facilities must be determined. To do this, the school surveyor should review the evaluation of each building discussed in the survey report, study carefully all of the conclusions derived from the basic data, and examine the preliminary estimate of the overall housing needs of the

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[34]Castaldi, p. 333.

[35]Ben E. Graves, "How to Turn Old or Empty or Obsolete School Spaces into Really Usable Space," The American School Board Journal, April, 1975, p. 50.

[36]Cyril G. Sargent, "Fewer Pupils, Surplus Space: The Problem of School Shrinkage," Phi Delta Kappan, 56:354, January, 1975.

school district.[37] With this knowledge clearly in mind, he was prepared to make an intelligent decision regarding the future of each building.

Some community groups, fearing that a closed school would be the catalyst of their neighborhood's deterioration, developed a consciousness about school preservation. They set out to prove that an elementary school was often the focus of a residential neighborhood and that an area's progress and prosperity should not be measured by how new its buildings were.[38] Out of these efforts came evidence that creative recycling of older structures could be more economical than constructing new ones. Some advocates of preservation suggested that saving a building could be as much as 30 percent cheaper than tearing it down and putting up a new one.[39]

Accountability

In many communities, especially rural communities, the largest capital outlay was often the local school facility. However, in many cases an evening "field trip" to the school would show that it was grossly under-utilized between the hours of four o'clock in the afternoon and eight o'clock in the morning. With zero population growth on the horizon, and that portion of the taxpaying public not having school aged children becoming larger and larger as years go by, the question of accountability for the expenditure of monies earmarked

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[37]Castaldi, p. 136.

[38]Gillespie, p. 7.

[39]Gillespie, p. 7.

for education became more relevant. Educators were being asked to be not only accountable for the education of children, but also for the proper use of tax dollars when educational facilities were constructed.[40]

Leon M. Lessinger emphasized that it was not the traditional perception that made accountability so popular or that made it endure.[41] He recognized "three distinct, but interactive types"; namely, performance accountability, professional accountability, and system accountability. He cited the "exponential cost increases," public dissatisfaction with educational outcomes, and public interest in adapting "modern management procedures" to educational institutions as reasons for the "rediscovery or and widespread demands for accountable education."[42]

Knezevich pointed out that the status of school property accounting was at least thirty years behind that of accounting for other school financial transactions.[43]

Davis, in the Kentucky State Advisory Council for Vocational Education study, found that the utilization of school facilities during

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[40]B. Glen Davis and E. Norman Sims, "Educational Accountability and the Inadequate Utilization of Facilities: Is Adult and Continuing Education the Answer?" Adult Leadership, 25:172, February, 1977.

[41]Leon M. Lessinger, "Accountability: Present Forces and Future Concerns," New Directions for Education, 1:1, Spring, 1973.

[42]Lessinger, p. 8.

[43]Stephen J. Knezevich, Administration of Public Education (New York: Harper and Row, 1975), p. 555.

the four hour period immediately following the end of the traditional school day ranged from less than 2 percent utilization to slightly more than 16 percent utilization.[44]

Charles E. Perry noted that when Florida International University opened its doors to more than five thousand students in September, 1972, 60 percent of the students registered for courses that began at 6:00 p.m. or later.[45]

Summary of Review of Related Literature

The review of literature was divided into six subdivisions, each having a direct influence on the problem of abandoned elementary and secondary school buildings.

The opinions expressed in the literature are summarized as follows;

1. Elementary enrollment started to decline in the 1960's and should continue to decline through the mid 80's.

2. Drastic population shifts had become a particularly agonizing problem for city school planners.

3. The voters' defeat of bond issues indicated a trend in public attitude toward the status of future building construction in the nation.

4. When selling or leasing public school property, local administrators and board members must involve the members of the community

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[44]Davis, p. 172.

[45]Charles E. Perry, The First Thousand Days, U. S. Educational Resources Information Center, ERIC Document ED 071 592, July 1972.

to be affected in decision making.

5. Existing educational structures were utilized less than 8 percent during the non-school hours.

6. In many sections of the country, the renovation of older school buildings proved to be an economically sound investment.

7. Local school districts could better utilize their facilities in a cooperative effort with local governmental agencies in the "community school" concept.

8. There was no specific answer to the question--Abandon or Build?

Chapter 3

PROCEDURES FOR THE STUDY

This study was designed for the following purposes: (1) to identify practical utilization of school facilities through a review of literature with special emphasis on utilization of abandoned facilities, (2) to determine the number and location of public school buildings in the state of Kentucky which have been abandoned during the period 1976 through 1980, (3) to determine the number and location of school buildings that are only partially used for educational purposes, (4) to identify those buildings that are scheduled to be abandoned or phased out of use within the subsequent two years (1980-1982), (5) to determine the value of abandoned school property.

Through the analysis of data, recommendations for efficient procedural guidelines in the decision making process for future utilization of school facilities were made.

Construction of the Survey Instrument

The principal source of data for this study was information received from public school superintendents by means of a questionnaire that was designed to gather information about public school buildings in Kentucky not available in any known published report.[1]

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[1]Statement by Harold Doane, Director, Kentucky Department of Education, Division of Data Control, Frankfort, Kentucky, June 2, 1980.

The questionnaire that was used in the original study by Francis Victor Ciochon provided the basis for the instrument used in this study.[2]

The Questionnaire

The instrument consisted of four closed-end questions and four questions asking for specific additional information. School buildings that were listed in the Kentucky School Directory 1975-1976,[3] and not appearing in the Kentucky School Directory 1979-1980[4] either by center and/or school code were listed by name and school code in question I. The respondent was to check the appropriate box(es) to indicate the status of the abandoned building. Choices were: condemned not usable, usable but in need of remodeling, usable in present condition, presently being used under different name, no longer belongs to school district, and other reasons.

Question II was answered by checking the appropriate box which indicated why the building(s) were abandoned. Reasons listed on the questionnaire were: replaced by new structure, population shift, unsatisfactory condition of building, consolidation, and destroyed (e.g., fire, wind, hurricane, etc.).

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[2]Francis Victor Ciochon, "The Present Condition and Potential Uses for Abandoned Public School Buildings in Florida" (PhD dissertation, The University of Mississippi, 1971), pp. 78-79.

[3]Lyman V. Ginger, Kentucky School Directory, 1975-1976 (Frankfort, Kentucky: Kentucky Department of Education, 1975), pp. 118-156.

[4]James B. Graham, Kentucky School Directory, 1979-1980 (Frankfort, Kentucky: Kentucky Department of Education, 1979), pp. 113-137.

Question II and question IV asked the respondent to give a monetary value to the building(s) and their cost of maintenance.

Partially used buildings were addressed with questions V and VI. Question V required a yes/no response on the question of the school district having partially used buildings. Question VI asked the respondent to identify the partially used building(s) and to indicate by checking the type of program housed in that facility. Types of programs listed were: regular educational program, headstart, day care center, community center and other.

The prospect of abandoning buildings during 1980-1982 was dealt with in questions VII and VIII. Question VII requested the respondent to identify the building(s) to be abandoned during the period, 1980-1982. Question VIII asked the respondent to identify proposed programs for use of buildings to be abandoned in the period, 1980-1982. A copy of the questionnaire used in the survey is shown in Appendix A.

Method of Study

A copy of the questionnaire was mailed to 181 public school superintendents in Kentucky on August 1, 1980. A cover letter and a self-addressed envelope were included with each questionnaire.

By August 25, 1980, 106 (58.56 percent) questionnaires had been returned. On August 25, 1980, the first follow-up letter and another copy of the questionnaire, with a self-addressed envelope, were mailed to the seventy-five superintendents who had not returned the questionnaire, By September 15, 1980, 143 (78.45 percent) questionnaires had been received. On September 15, 1980, the second follow-up letter was

mailed with the questionnaire, again with a personal note (Appendix D) stressing the urgency of a reply. On September 30, 1980, a follow-up letter (Appendix F) from Mr. Steve B. Marcum, Director, Division of Buildings and Grounds, Kentucky Department of Education, along with a questionnaire and a self-addressed stamped envelope, were mailed to the nineteen superintendents (Appendix G) who had not responded. On October 22, 1980, a telephone call was made to each of the ten superintendents who had not responded.

On October 22, 1980 the data gathered by the questionnaire and telephone survey were tabulated; an analysis of the data appears in Chapter 4.

A selected school district was examined to determine relative costs of retaining the building compared to replacing it when needed.

Based on the literature, the state-wide survey, and the illustrative existing situation, a set of fifteen procedural guidelines were developed and mailed to nine jurors who were considered experts in the field of school building planning. To insure the validity and reliability of the guideline elements, the jurors were to rank order them. The results of the jury rankings were then tabulated from most significant to least significant.

Summary

A questionnaire and contact by telephone were the methods used to glean the data in this study. The questionnaire was designed so that the investigator could refer by school code and/or school name to each building in the 181 school districts in Kentucky. After the

results of the questionnaires were tabulated, a selected school district, having abandoned buildings, was studied as a selected illustration.

Based on the literature, the results of the survey, the selected illustration, fifteen guideline elements were identified. Rating sheets with the fifteen guideline elements were then sent to a panel of experts, the jury, for validation.

Chapter 4

PRESENTATION AND ANALYSIS OF THE DATA

Introduction

The analysis of data accumulated in the research is presented in this chapter. Information was received from the 181 school districts in Kentucky and is presented in narrative, graphic, and tabular form.

In order to facilitate presentation of the data, the chapter is divided into the following categories: (1) buildings that were listed in the Kentucky School Directory, 1976-1976, and did not appear in the Kentucky School Directory, 1979-80 either by center or school code; (2) buildings abandoned during the period 1975-80; (3) buildings partially used; (4) the buildings that will be abandoned during the period 1980-82; (5) monetary value and maintenance costs of abandoned buildings; and (6) a selected illustration.

Buildings That Were Listed in 1975-76 And Not Listed in 1979-80

Data contained in Table 1 point out the differences in the number and percentages of school centers from 1975 to 1980. These are the seventy-six school centers identified as abandoned or no longer belonging to the school district.

The Kentucky School Directory 1975-76 was compared with the Kentucky School Directory 1979-80 to determine the existence of

Table 1

The Number and Percentage of Buildings That Were Listed In The 1975-76 Kentucky Department of Education Directory, but Not Appearing in the 1979-80 Kentucky Department of Education Directory Listed by School District

School District	Number of Schools Listed In 1979-80 Directory	Number of Schools Abandoned During 1975-80	Percentage of Schools Abandoned During 1975-80
Anderson Co.	6	1	17
Bell Co.	14	2	14
Ashland Ind.	11	1	09
Fairview Ind.	3	1	33
Bracken Co.	4	1	25
Breathitt Co.	8	1	13
Murray Ind.	3	1	33
Campbell Co.	8	1	13
Christian Co.	17	1	06
Owensboro Ind.	12	3	25
Fulton Co.	4	1	25
Graves Co.	13	1	08
Hancock Co.	5	1	25
Hardin Co.	17	1	06
Hickman Co.	2	2	100
Hopkins Co.	19	2	11
Jefferson Co.	153	15	10
Covington Ind.	12	3	25

Table 1 (continued)

School District	Number of Schools Listed In 1979-80 Directory	Number of Schools Abandoned During 1975-80	Percentage of Schools Abandoned During 1975-80
Erlanger Ind.	6	1	17
Knott Co.	14	2	14
Laurel Co.	14	4	29
Lawrence Co.	5	4	80
Leslie Co.	9	1	11
Letcher Co.	17	1	06
Lewis Co.	7	1	14
Livingston Co.	6	1	17
Russellville Ind.	3	1	33
Magoffin Co.	7	1	14
Mason Co.	4	3	75
McCracken Co.	13	1	08
Paducah Ind.	10	1	10
McCreary Co.	9	1	11
Meade Co.	10	1	10
Montgomery Co.	5	2	40
Muhlenberg Co.	11	2	18
Perry Co.	15	1	07
Powell Co.	5	1	20
Somerset Ind.	6	1	17

Table 1 (continued)

School District	Number of Schools Listed In 1979-80 Directory	Number of Schools Abandoned During 1975-80	Percentage of Schools Abandoned During 1975-80
Simpson Co.	5	4	80
Spencer Co.	2	1	50
Woodford Co.	8	1	13
Total	502	76	15.14

differences. The seventy-six buildings that lost their identity between 1976 and 1980 were listed as abandoned buildings and no longer used by the school district.

The number of identifiable school plants for 1979-80 range from a high of 153 (Jefferson County) to a low of one (Southgate Independent, West Port Independent, East Bernstat Independent, and Science Hill Independent). From 1975 the difference in the number of school buildings ranged from zero to 139 school districts to fifteen centers in Jefferson County.

During the 1975 through 1980 period, one school district consolidation (Henderson Independent/Henderson County) was completed in Kentucky.

Abandoned Buildings 1975 to 1980

Data relating to school plants that no longer serve the school district in any way are presented in Table 2. This condition is illustrated in Figure 1. During the five years (1975-1980) 108 school plants were abandoned. Within this period of time twenty-four school districts (13 percent) abandoned at least one school building, and twenty-six districts (15 percent) abandoned two or more buildings. The largest number of buildings abandoned was in Jefferson County, with fifteen buildings that no longer served the school district. Floyd County and Clay County had seven and six buildings, respectively, that were not used by the school district. One hundred thirty-one districts (72 percent) did not abandon any public school buildings during the five years,

Table 2

The Number of Public School Buildings That Have Been Abandoned in the Past Five Years (1976-80) by School District

School District	Number of School Buildings 1979-80	Number of Abandoned Buildings
Anderson Co.	6	3
Ballard Co.	7	3
Bell Co.	14	2
Middlesboro Ind.	4	2
Burbon Co.	7	1
Ashland Ind.	11	2
Fairview Ind.	3	1
Bracken Co.	4	1
Breathitt Co.	8	1
Newport Ind.	8	2
Carter Co.	12	1
Christian Co.	17	1
Clay Co.	10	6
Edmonson Co.	5	1
Elliott Co.	4	1
Estill Co.	7	1
Floyd Co.	25	7
Fulton Co.	4	1
Graves Co.	13	1
Greenup Co.	12	2

Table 2 (continued)

School District	Number of School Buildings 1979-80	Number of Abandoned Buildings
Hancock Co.	5	2
Hardin Co.	17	1
Hickman Co.	2	2
Hopkins Co.	19	2
Jefferson Co.	153	15
Anchorage Ind.	2	1
Jessamine Co.	6	1
Johnson Co.	7	1
Covington Ind.	12	3
Erlanger Ind.	6	1
Knott Co.	14	3
Knox Co.	11	3
Lawrence Co.	5	4
Leslie Co.	9	2
Letcher Co.	17	2
Lewis Co.	7	1
Livingston Co.	6	1
Magpffin Co.	7	1
Mason Co.	4	2
Paducah Ind.	10	4
Muhlenberg Co.	11	2
Greenville Ind.	2	1

Table 2 (continued)

School District	Number of School Buildings 1979-80	Number of Abandoned Buildings
Owsley Co.	2	1
Pike Co.	34	3
Pikeville Ind.	2	2
Somerset Ind.	6	1
Trigg Co.	3	1
Bowling Green Ind.	8	2
Woodford Co.	8	1
TOTAL	576	106

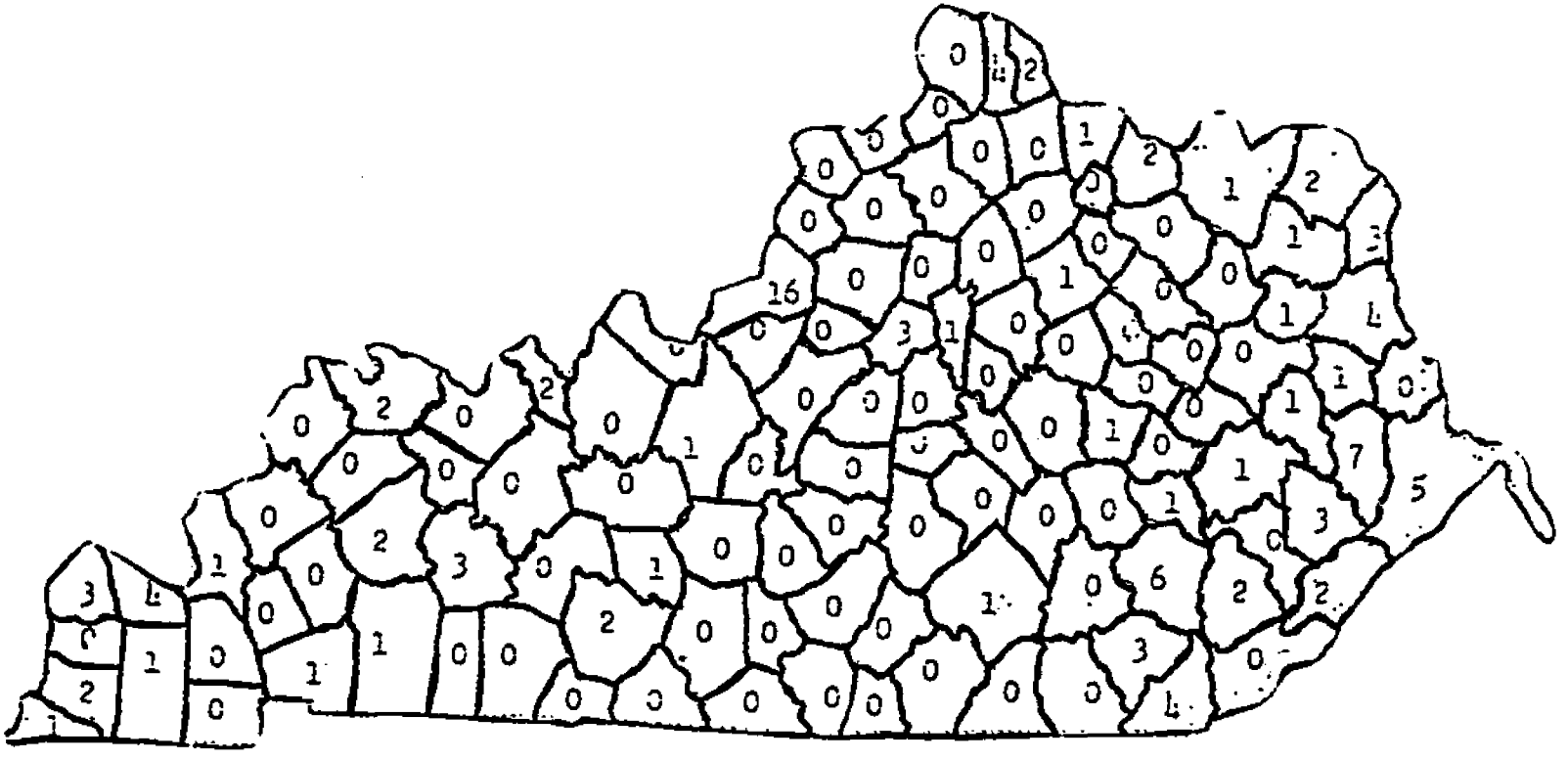

Figure 1

The Number of Public School Buildings
Abandoned in the Period (1975-1980)
By County School District

P. P. Karan and Cotten Mather, Eds., Atlas of Kentucky (Lexington: The University Press of Kentucky, 1977, p. 19.

Within the five years (1975-80) it was reported that forty-nine districts in Kentucky abandoned a total of 106 public school buildings. As determined from the questionnaire and the telephone conversations with ten of the superintendents, these buildings served the school districts in no educational capacity.

The number of abandoned buildings and the reasons for abandonment are listed in Table 3 and Figure 2. Of the 108 buildings abandoned, ten buildings had been condemned and were identified as unfit for educational or instructional purposes. Twenty-nine buildings were usable but in need of remodeling. Among the abandoned buildings, thirty-nine were usable in the present condition.

School superintendents indicated twenty-eight buildings no longer belonged to the school district. In completing the questionnaire, superintendents gave "Other Reasons" for abandoning two school facilities. The reasons tabulated were the ones which satisfied the requirements of being no longer of use to the school district or of not meeting the five criteria enumerated in the questionnaire. (This is depicted in Figure 2.

In Table 4 are reported data relating to the thirty-one buildings that were used for various educational purposes. Jefferson County utilized twelve school buildings for various educational purposes. Two of the buildings were used for administrative centers, two as warehouses, two as special education centers, two day care centers, two youth centers and two adult education centers.

Estill County, Henderson County, Jessamine County, Knott County, and Magoffin County utilized abandoned school buildings as central

Table 3

The Present (1980) Status of Abandoned School Buildings by School District

School District	Condemned-Not Usable	Usable But In Need of Remodeling	Usable In Present Condition	No Longer Belong To School District	Other Reason
Anderson Co.		1		2	
Anchorage Ind.	1				
Ashland Ind.		1	1		
Ballard Co.		1	2		
Bell Co.	1			1	
Bowling Green Ind.				2	
Bracken Co.					1
Breathitt Co.				1	
Burbon Co.				1	
Carter Co.	1				
Christian Co.	1				
Clay Co.		2	4		
Covington Ind.		3			
Erlanger Ind.			1		

Table 3 (continued)

School District	Condemned-Not Usable	Usable But In Need of Remodeling	Usable In Present Condition	No Longer Belong To School District	Other Reason
Edmonson Co.	1				
Elliott Co.		1			
Estill Co.			1		
Fairview Ind.			1		
Floyd Co.		4		3	
Fulton Co.				1	
Graves Co.			1		
Greenup Co.		2			
Greenville Ind.		1			
Hancock Co.				2	
Hardin Co.		1			
Henderson Ind.				2	
Hickman Co.	2				
Hopkins Co.			2		
Jefferson Co.	1		13		1 Razed

Table 3 (continued)

School District	Condemned-Not Usable	Usable But In Need of Remodeling	Usable In Present Condition	No Longer Belong To School District	Other Reason
Jessamine Co.			1		
Johnson Co.			1		
Knott Co.			3		
Knox Co.			3		
Lawrence Co.				4	
Leslie Co.	1		1		
Letcher Co.		2			
Lewis Co.				1	
Livingston Co.				1	
Magoffin Co.			1		
Mason Co.				2	
Middlesboro Ind.		2			
Muhlenberg Co.				2	
Newport Ind.		1		1	
Owsley Co.		1			

Table 3 (continued)

School District	Condemned-Not Usable	Usable But In Need of Remodeling	Usable In Present Condition	No Longer Belong To School District	Other Reason
Paduch Ind.			2	2	
Pike Co.		3			
Pikeville Ind.		2			
Somerset Ind.	1				
Trigg Co.			1		
Woodford Co.		1			
TOTAL	10	29	39	28	2

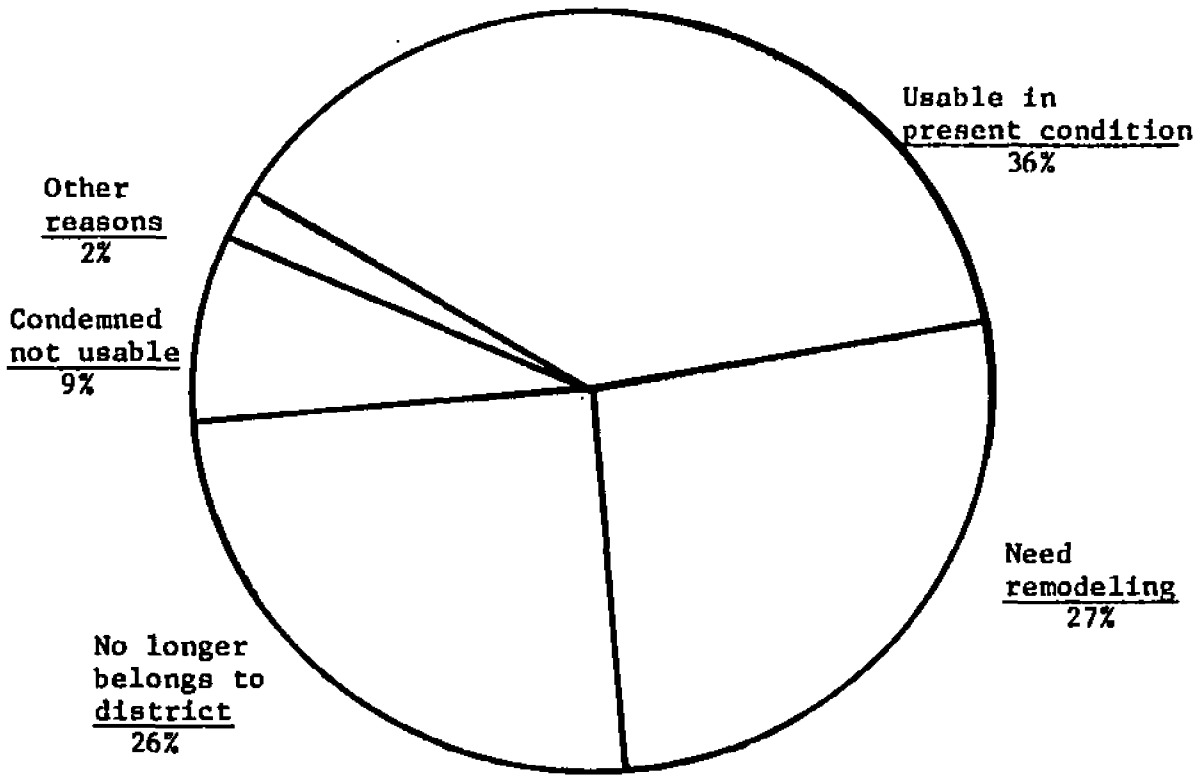

Figure 2

The Present (1980) Status of Abandoned School Buildings by County

Table 4

The Present (1980) Status of Abandoned School Buildings Now Used For Educational Purposes Identified by School District

School District	Number of Schools	Occupancy of Building
Clay Co.	3	Rural Child Care Center
Estill Co.	1	Central Offices
Floyd Co.	2	Day Care Center
Graves Co.	1	Day Care Center
Henderson Co.	1	Central Offices
Hopkins Co.	1	Learning Resource Center
Jefferson Co.	12	(2) Administration Center (2) Warehouse (3) Special Education Center (2) Day Care Center (1) Youth Center (2) Adult Education Center
Jessamine Co.	1	Central Offices
Knott Co.	2	(1) Central Offices (1) Industrial Arts Center
Knox Co.	2	Day Care Center
Leslie Co.	1	Special Education Center
Letcher Co.	1	Head Start Center
Magoffin Co.	1	Central Offices
Middlesboro Ind.	1	Head Start Center
Paducah Ind.	1	Special Education Center
TOTAL	31	

offices. Clay, Floyd, Graves, and Knox Counties used abandoned buildings for day care centers. Leslie County and Middlesboro Independent used abandoned school buildings for Head Start Centers, while Knott County used an abandoned building for an Industrial Arts Center and Hopkins County utilized an abandoned school building for a Learning Resources Center.

Data presented in Table 5 are reported in seven broad categories. This compilation consists of all the reasons checked on the questionnaire or given by telephone by the superintendents. The superintendent could check one box or as many as were appropriate for each building listed as abandoned. Thirty abandoned school buildings were replaced by new structures, eleven were closed because of population shifts, five were abandoned because of the unsatisfactory condition of the building and sixty-two were abandoned due to consolidation. No buildings were listed as being abandoned as a result of fire, wind, flood or under the categories of other or unknown. (Figure 3)

Buildings Used for Non-Educational Purposes

The buildings presented in Table 1 through Table 5 were those listed in the Kentucky School Directory 1975-1976, and not appearing in the Kentucky School Directory 1979-1980. The information presented in Table 6 relates to the thirty-three school buildings that were used, but the programs were not operated by the school district. Twelve buildings were used for community centers, child care centers, and senior citizen centers. Three buildings were leased to governmental agencies for offices. Three were used as mental health and rehabilita-

Table 5

The Reasons School Buildings Were Abandoned as Listed by School District

School District	Replaced By New Structure	Population Shift	Unsatisfactory Condition Of Building	Consolidation	Destroyed--Fire, Wind, Flood, etc.	Other	Unknown
Anderson Co.	3						
Anchorage Ind.		1					
Ashland Ind.		1		1			
Ballard Co.				3			
Bell Co.			1	1			
Bowling Green Ind.		2					
Braken Co.	1						
Breathitt Co.	1						
Burbon Co.		1					
Carter Co.	1						
Christian Co.	1						
Clay Co.				6			
Covington Ind.				3			
Erlanger				1			

Table 5 (continued)

School District	Replaced By New Structure	Population Shift	Unsatisfactory Condition Of Building	Consolidation	Destroyed--Fire, Wind, Flood, etc.	Other	Unknown
Edmonson Co.				1			
Elliott Co.				1			
Estill Co.	1						
Fairview Ind.		1					
Floyd Co.				7			
Fulton Co.	1						
Graves Co.				1			
Greenup Co.				2			
Greenville Ind.	1						
Hancock Co.				2			
Hardin Co.	1						
Henderson Ind.				2			
Hinkman Co.	2						
Hopkins Co.		1		1			
Jefferson Co.	4	4	3	4			

Table 5 (continued)

School District	Replaced By New Structure	Population Shift	Unsatisfactory Condition Of Building	Consolidation	Destroyed--Fire, Wind, Flood, etc.	Other	Unknown
Jessamine Co.				1			
Johnson Co.				1			
Knott Co.				3			
Knox Co.				3			
Lawrence Co.				4			
Leslie Co.				2			
Letcher Co.				2			
Lewis Co.				1			
Livingston Co.	1						
Magoffin Co.	1						
Mason Co.				2			
Middlesboro Ind.	2						
Muhlenberg Co.	1			1			
Newport Ind.	1		1				
Owsley Co.				1			

Table 5 (continued)

School District	Replaced By New Structure	Population Shift	Unsatisfactory Condition Of Building	Consolidation	Destroyed--Fire, Wind, Flood, etc.	Other	Unknown
Paducah Ind.				4			
Pike Co.	3						
Pikeville Ind.	2						
Somerset Ind.	1						
Trigg Co.				1			
Woodford Co.	1						
TOTAL	30	11	5	62	0	0	0

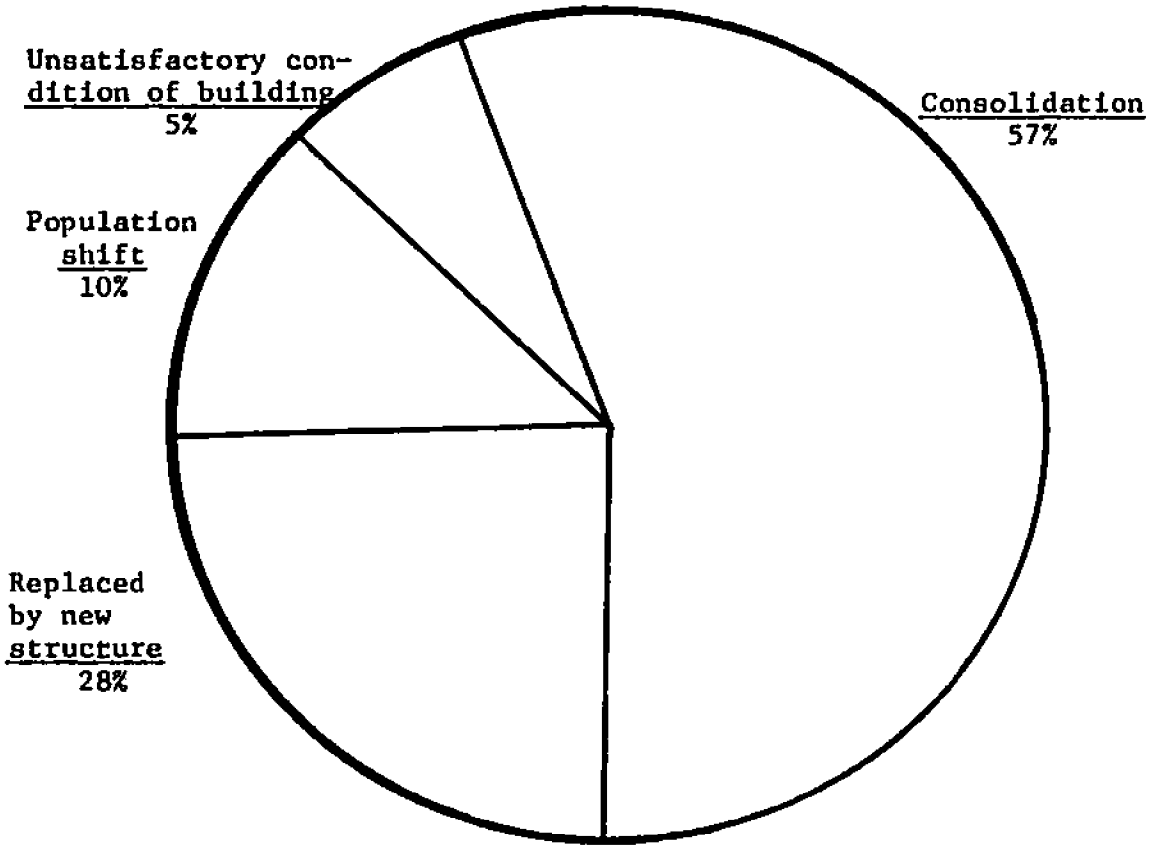

Figure 3

The Reasons By Percentages School Buildings Were Abandoned as Listed on the Questionnaire

Table 6

The Number and Types of Programs That Occupy Buildings Used Partially for Non-Educational Purposes

School District	Number of Buildings	Type of Program
Anderson Co.	1	Leased-Church
Ashland Ind.	2	(1) Central Storage (1) Senior Citizen Center
Ballard Co.	1	Community Center
Carter Co.	1	Offices-Northern Area Development Council
Christian Co.	1	Storage
Clay Co.	3	(1) Book Depository (2) Storage
Elliott Co.	1	Community Center
Erlanger Ind.	1	Child Care Center
Floyd Co.	2	(1) Leased-Coal Co. Offices (1) CETA
Greenup Co.	2	Community Center
Hopkins Co.	1	Maintenance Department
Jefferson Co.	1	Leased-Private School
Johnson Co.	1	Community Center/Fire Dept.
Knott Co.	1	CETA
Knox Co.	1	OEO Program Offices
Leslie Co.	1	Child Care Center
Letcher Co.	2	(1) Child Care Center (1) Community Center
Marshall	1	Mental Health Center
Mayfield Ind.	1	Child Care Center

Table 6 (continued)

School District	Number of Buildings	Type of Program
Middlesboro Ind.	1	Rehabilitation Center
Newport Ind.	1	Leased - U. S. Army
Owsley Co.	1	Mental Health Center
Paducah Ind.	1	YWCA/Arts Center
Pikeville Ind.	2	(1) Leased - Kentucky Business College (1) Community Center
Trigg Co.	1	Child Care Center
Woodford Co.	1	Maintenance/Storage
TOTAL	33	

tion centers. Six buildings were used for storage and maintenance. Two buildings were leased to private schools, one was leased to the United States Army and one was used by the YMCA.

Buildings to be Abandoned 1980-1982

In addition to the 108 school buildings abandoned since 1975, thirty additional buildings, according to the superintendents, were intended to be abandoned or phased out in the subsequent two years (1980-1982). The data of the general condition of the thirty buildings to be abandoned are presented in Table 7. The general condition of the buildings was classified in the questionnaire in one of the following categories: condemned, in need of remodeling, or satisfactory in present condition. Ten buildings were classified as satisfactory, nineteen were listed as in need of remodeling and one was classified as condemned.

The classification and location of the thirty schools to be abandoned or phased out in the subsequent two years (1980-82) are reported in Table 8. Sixteen were classified as white schools, none was classified as Negro, while fourteen were listed as Unknown because the superintendent did not state the general classification of the schools on the questionnaire. Nine of the school buildings to be abandoned were listed as rural, eighteen were urban while three were listed as unknown because the superintendent did not state the general location of the schools.

Table 7

The Number and the General Condition of Public School Buildings to Be Abandoned or Phased Out in The Period 1980-1982 Listed by School District

School District	Number of Buildings	General Condition		
		Satisfactory In Present Condition	In Need of Remodeling	Condemned
Allen Co.	1		1	
Ashland Ind.	1		1	
Boyd Co.	1		1	
Breathitt Co.	1	1		
Crittenden Co.	2		2	
Edmonson Co.	1		1	
Elizabethtown Ind.	1		1	
Grant Co.	2	2		
Henderson Co.	1		1	
Jefferson Co.	7	4	3	
McCreary Co.	1			1
Morgan Co.	1		1	
Newport Ind.	1	1		
Owensboro Ind.	4	1	3	
Pike Co.	1		1	
Pulaski Co.	1		1	
Webster Co.	2		2	
Williamsburg Ind.	1	1		
TOTAL	30	10	19	1

Table 8

The Classification and Location of Buildings
To Be Abandoned Listed by School District

School District	General Classification			General Location		
	White	Negro	Unknown[a]	Rural	Urban	Unknown[b]
Allen Co.	1			1		
Ashland Ind.	1				1	
Boyd Co.	1				1	
Breathitt Co.	1			1		
Crittenden Co.	2				2	
Edmonson Co.	1					1
Elizabethtown Ind.	2				2	
Grant Co.	2			2		
Henderson Co.			1	1		
Jefferson Co.			7		7	
McCreary Co.	1			1		
Morgan Co.	1			1		
Newport Ind.	1				1	
Owensboro Ind.			3		3	
Pike Co.	1			1		
Pulaski Co.	1			1		
Webster Co.			2			2
Williamsburg Ind.			1		1	
TOTAL	16	0	14	9	18	3

[a]Superintendent did not state the general classification of the schools.

[b]Superintendent did not state the general location of the schools.

Monetary Value of Abandoned School Buildings and Current Cost of Maintaining Abandoned School Properties

In analyzing the questionnaire with reference to the value of school buildings listed in the Kentucky School Directory 1975-76 and not identifiable in the Kentucky School Directory 1979-80, superintendents assigned a monetary value to the buildings that were listed on the questionnaire and other abandoned buildings where applicable. Table 9 consists of the tabulation of the figures listed on the returned questionnaires. (This is illustrated in Figure 4). The monetary value of abandoned school buildings, as indicated by superintendents, ranged from a low of two thousand dollars for one building in Elliott County to a high of eight hundred thousand dollars for two buildings in the Pikeville Independent School District.

Summary

This portion of the study is a summation of the data obtained from the questionnaires to which the superintendents responded. A summary of the data indicated the following:

1. In the state of Kentucky 108 public school buildings were abandoned between the 1975-76 and 1979-80 school years.

2. Within this period twenty-four districts abandoned at least one school building, and twenty-six abandoned two or more buildings.

3. One hundred thirty-one school districts were using all existing school plants.

4. Sixty-eight buildings that were abandoned could be used for educational purposes--thirty-nine in the condition at the time of the

Table 9

The Value of School Buildings Abandoned During the Period 1975-80 and the Cost of Maintaining These Buildings Listed By-School District

School District	Value of Abandoned School Buildings	Number of Buildings	Cost of Maintenance
Anchorage Co.	$ 500,000.00	1	
Anderson Co.	175,000.00	3	
Ashland Ind.	325,000.00	2	
Ballard Co	30,000.00	3	
Edmonson Co	20,000.00	1	
Elliott Co	2,000.0	1	
Fairview Ind.	430,000.00	1	1,500.00
Floyd Co.	250,000.00	4	
Henderson Co/Ind.	40,000.00	2	
Hickman Co.	20,000.00	1	
Hopkins Co.	500,000.00	2	
Jefferson Co.	55,000.00	1	3,000.00
Jessamine Co.	500,000.00	1	5,000.00
Johnson Co.	50,000.00	1	
Letcher Co.	8,500.00	2	
Magoffin Co.	20,000.00	1	
Middlesboro Ind.	450,000.00	2	
Newport Ind.	200,000.00	1	
Owsley Co.	20,000.00	1	

Table 9 (continued)

School District	Value of Abandoned School Buildings	Number of Buildings	Cost of Maintenance
Paducah Ind.	$300,000.00	2	
Pike Co.	250,000.00	3	
Pikeville Ind.	800,000.00	2	
Trigg Co.	750,000.00	1	5,000.00
Woodford Co.	20,000.00	1	
TOTAL	$5,725,500.00	40	$ 14,500.00

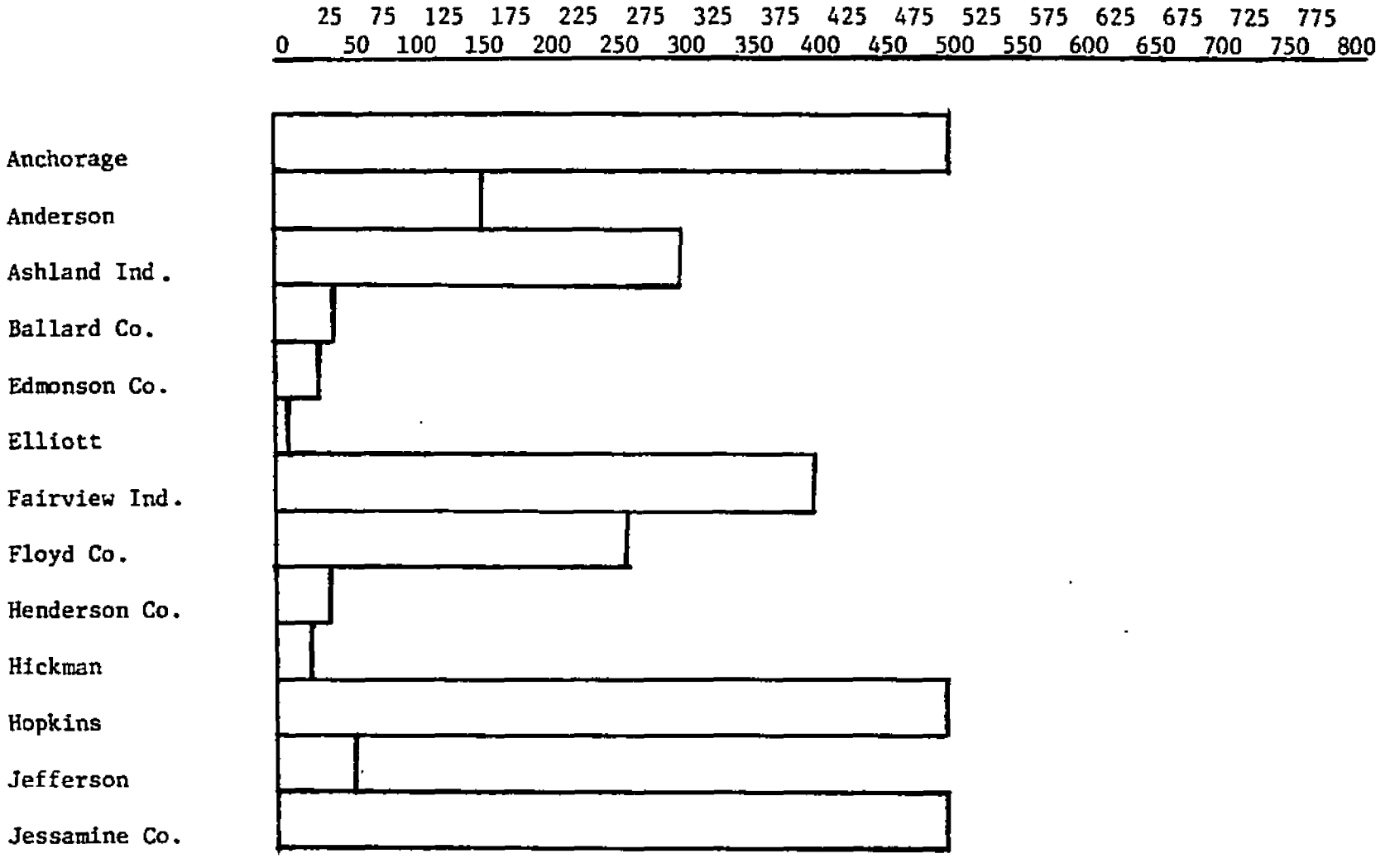

Figure 4

Monetary Value of Abandoned Public School Buildings in Kentucky
in Thousands of Dollars by District

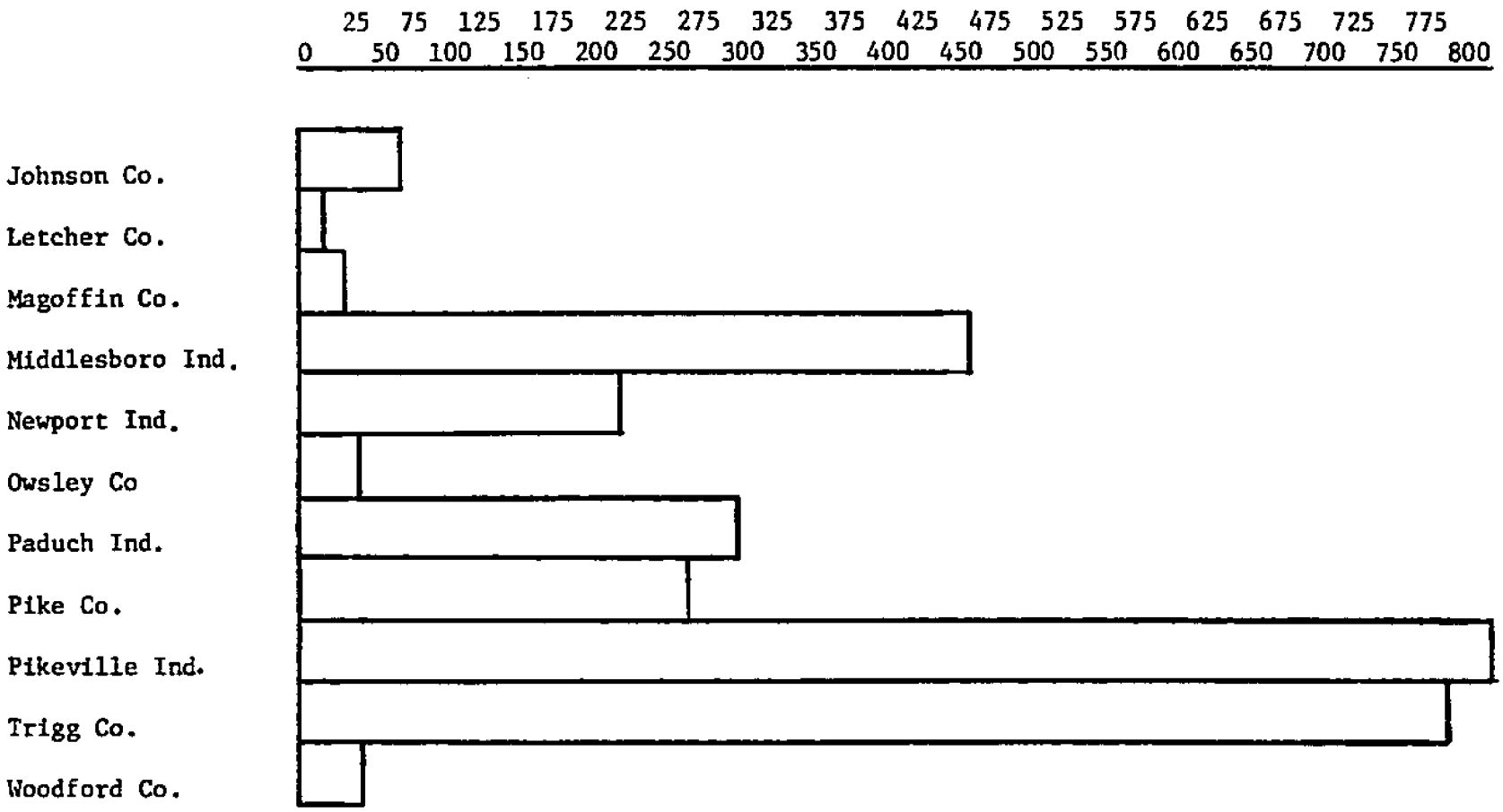

Figure 4 (continued)

survey, and twenty-nine in need of remodeling.

5. There were a total of ten condemned buildings in the state.

6. Twenty-eight of the buildings in operation during the 1975-76 school year no longer belonged to the school district in 1979-1980.

7. Thirty-one abandoned school buildings were functioning in some educational capacity.

8. The major reason the 108 public school buildings were abandoned were consolidation (62), replaced by new structure (30) population shift (11), and five buildings were abandoned due to unsatisfactory condition of the building.

9. Thirty-three abandoned buildings were used for non-educational purposes. Twelve abandoned buildings were used as community centers, child care centers and senior citizen centers. Three were leased to governmental agencies. Three were mental health and rehabilitation centers. Six were storage and maintenance buildings. Two buildings were leased to private schools while one was leased to the United States Army and one was used as a YMCA.

10. The abandoning or phasing out of thirty school buildings was planned during the two-year period, 1980-1982. Ten buildings were in satisfactory condition, nineteen were in need of remodeling and one was condemned.

11. Sixteen of the buildings to be abandoned were classified as White schools, none was Negro and the superintendents did not state the general classification of fourteen schools.

12. In the state of Kentucky school buildings worth $5,725,500 were abandoned in the five years prior to 1980.

13. The study identified four abandoned buildings that required $14,500 annually to maintain.

Chapter 5

A SELECTED ILLUSTRATION

Introduction

The selected Kentucky school district used for illustration purposes was an independent school district in eastern Kentucky in a town of five thousand population. The school district operated two schools, one elementary school (K-6), and one high high (7-12). The school district opened a new high school building in 1976, abandoning the former site, which was appraised at $800,000.

The architect's estimate for complete renovation to comply with federal handicap regulations and fire marshall regulations was one million seven hundred thousand dollars. The renovated space could be used to house a day care center, senior citizen center, adult and continuing education center, or mental health and rehabilitatioon center. Office space could be leased to governmental agencies to help recover the cost of renovation.

The school district showed an increase in population during the period, 1971-1980 with the trend predicted to continue with the possibility of an increase sufficient to require a third school building. M. E. Hickey pointed out that the population of a school district would voice opposition to a bond issue for additional facilities if a school board had disposed of property that could have been

renovated at a savings of as much as 10 to 20 percent of the cost of a new structure.[1]

The selected school district's abandoned buildings plus the cost of renovation equals two and one-half million dollars. If the economic indicators continue increasing during the ten year period, 1981-90 as they did from 1970 to 1980, there would be a 140 percent increase in the cost of goods and services. Therefore, a six million dollar building would be required to replace a 1980 building valued at two and one-half million dollars.

The six million dollar investment could be saved for the tax payers by retaining the abandoned building, renovating, leasing to governmental agencies for a ten-year period, thus recovering the cost of renovation, converting to a school facility at the end of the lease period, thus saving the tax payers six million dollars or more.

Guidelines

Based on the review of literature and the analysis of data collected from the 181 superintendents of Kentucky, the following guidelines for the decision making process for future school building utilization were considered significant.

1. Population Trends and Shifts
2. Birth data
3. Migration (into and out of school district)

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[1]M. E. Hickey, "Here's How to Prevent Closed Schools From Becoming Empty Buildings," The American School Board Journal, 166:28, February, 1979.

4. Availability of family housing
5. Population projections
6. Community land utilization
7. Employment trends
8. Increasingly frequent Defeats of Bond Issues
9. Availability of school facilities (during non-school hours) to the community
10. Cost of remodeling abandoned school buildings as potential rental property
11. Cost of remodeling abandoned school buildings as potential school facilities to accomodate projected population increases
12. Future building cost as compared to remodeling cost of abandoned school buildings
13. Long range planning in all educational areas (facilities, curriculum, population, etc.)
14. Rental revenue from buildings not in school use
15. Bonding potential

Student Population

Population growth in the selected Kentucky school system increased from 1960 to 1980, although at a relatively slow pace, primarily due to the non-availability of land for residential development. The factors which contributed to the continued growth were still in effect, with the fact that the city was the primary employment center within the county obviously contributing to the city's past and present growth. The addition of new employment opportunities in the future, particularly in the River-Fill Development Project, the addition of new manufacturing industries in the area, the availability of land

for new residential development in the city and a continued annexation program by the city, made it probable that population growth in the future would occur at a rate in excess of that experienced during the period 1971 to 1980.[2]

In the projection of population, three basic steps were involved as follows: (1) Develop normal baseline population projections for the city based on natural increase as experienced in the period, 1971-1980; (2) Develop and add to baseline projections the impact of the development of new residential areas planned for the city in the future; and (3) Include increase in population due to the city's proposed annexation program.[3]

In projecting basic population growth for the city, growth rates were analyzed during the period from 1960 to 1979. The first consideration made in developing population projections as defined in the city's comprehensive plan included the impact of new residential development currently planned within the city limits. New residential projects considered in the projection included the Cedar Creek Area, 500 single family lots; Poor Farm West, 300 mobile home lots; Narrows Area, 100 units of housing; Road Fork Area, 100 units of housing; Fairview Area, 148 apartment units; Happy Hollow Area, seventy-five apartment units and the high rise for the elderly, 200 units.[4] It was

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[2]Warren Parker Tiller, "A Study of the Projected Population of the Pikeville Independent Schools (1976-1985), and Its Relationship to School Facilities" (EdS. Project, Morehead State University, 1978), p. 13.

[3]W. C. Hambley, Comprehensive Plan, Pikeville, Kentucky (Pikeville: Colloredo Associates, 1977), pp. 11-19.

[4]Hambley, pp. 11-19.

estimated that the planned residential developments would provide housing for an additional 3,500 people in Pikeville.

The second factor in the comprehensive plan for projecting the population of the city was the impact of the city's future annexation program. The city's annexation program contained plans to acquire an area with 300 residential structures with a total population of 900 residents.

A summary of the population projections is illustrated in Table 5. Present estimates foresee an 81 percent increase from 1976 to 1985. The increase will be largely attributed to new residential development within the city limits as a result of land being made available for new residential development due to the "Cut-Through" Project and the Pikeville Community Development Program.

Continued growth is anticipated beyond 1990, but the rate of growth will primarily depend upon land availability for new residential development. It was estimated that the city's 1976 population of 5,475 would double by 1996, giving a population of approximately 11,000 persons.[5]

In determining enrollment projections for the Pikeville Public Schools, an analysis of 1976-1977 city school enrollment with the population of 5,475 for the City of Pikeville indicated a ratio of ninety-four kindergarten-elementary children per 1,000 population and ninety junior-senior high school age children in the population will remain approximately the same in future years. Future enrollment

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[5]Hambley, pp. 11-20.

Table 10

Pikeville Population Projections, 1976-1996
Pikeville, Kentucky

Year	Baseline Projections	New Residential Development	Annexation	Total
1976	5,475			5,475
1980	5,700	1,500	700	7,900
1985	6,000	3,000	900	9,900
1990	6,300	3,500	900	10,700
1996	6,600	3,500	900	11,000

projections, based on population estimates determined in the Population and Economy Section of the Comprehensive Plan, were derived and are illustrated in Table 11 for five-year periods to 1996.[6]

Tiller, in 1978, drew the following conclusions from the enrollment projections presented in Table 11.

> 1. Substantial increases in enrollment will occur between 1980 and 1985 with an increase of 187 elementary school age children and 180 high school age children.
> 2. The increases in enrollment during the planning period are evenly proportioned with 372 in elementary schools and 354 in high school.
> 3. Approximately 42 elementary classrooms will be needed by 1996, an increase of approximately 12 over those in the Pikeville Independent School System in 1977.
> 4. A total of 33 high school classrooms will be needed by 1996, representing an increase of approximately 4 over those in use in 1977.[7]

The above projections apply only to the area encompassed in the Pikeville Independent School System. Any enrollment of students who live outside the school system will require additional classroom construction over that recommended on both the elementary school and high school levels.

The following recommendations were made in the Comprehensive Plan to meet anticipated enrollment demands due to development of areas as projected on the 1996 Pikeville Land Use Plan:

> 1. Reclassify the present school-grade system so Pikeville Elementary School will serve grades K-5 instead of K-6 and Pikeville High School will serve grades 10-12 instead of 7-12. This would require the establishment of a middle school serving grades 6-9.

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[6]Tiller, p. 20.

[7]Tiller, pp. 23-24.

Table 11

School Enrollment Projections Pikeville
City Schools 1980-1996

	1976 School Enrollment Per 1,000 Population	Projected Enrollment 2/ 1/ 1976	1980	1985	1990	1997
Elementary K-6	94	662	743	930	1,006	1,034
Junior-Senior High 7-12	90	636	711	891	963	990
TOTAL	184	1,298	1,454	1,821	1,969	2,024

1/ Pikeville Independent School System total includes 285 students living outside Pikeville Independent School System in Pike County

2/ Colloredo Associates, Inc. Does not include possible enrollment from outside Pikeville Independent School System

2. Acquire a site of a minimum of ten acres for a middle school containing eighteen classrooms and supporting facilities for a minimum capacity of 450 students.[8]

Renovation Potential

Construction costs for new elementary schools were $51.22 per square foot in 1980[9] compared to $22.60 per square foot in 1970.[10] The renovation cost of the main building of the old Pikeville High School was $36.62 per square foot (Appendix F) or a cost of 71 percent of the new construction cost. The design would be such that the conversion to a middle school could be accomplished with as little physical change as possible. The total renovation cost of the main building of $1,135,090 would make the building available for rental at a cost of $7.50 per square foot per year, with a total square footage of 31,000 square feet. Discounting the basement floor of one-third would leave 20,666 square feet for rental which would return $154,995 per year.

Construction costs for new office buildings were $58.84 per square foot in 1980[11] compared to $24.10 per square foot in 1970.[12] The renovation cost of the Wright Hall building of the old Pikeville High School was $33.08 per square foot (Appendix F), or a cost of 56 percent of the new construction cost. The total renovation cost of the

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[8]Hambley, pp. 1-6, 1-7.

[9]Percival E. Perceira, ed. Dodge Construction Systems Costs 1980 (New York: McGraw-Hill Information Systems Company, 1979), p. 63.

[10]Percival E. Perceira, ed., Dodge Construction Systems Costs 1970 (New York: McGraw-Hill Information Systems Company, 1969), p. 55.

[11]Perceira, 1979, p. 46. [12]Perceira, 1969, p. 38.

Wright Hall building of $615,206 would make the building available for rental at a cost of $7.50 per square foot per year with a total square footage of 18,600 square feet, or two-thirds usable space. Twelve thousand four hundred feet of rental space would return $93,000 per year.

The high average cost of new elementary or middle school construction in 1980 was $51.22. Therefore, a new elementary/middle school of 49,600 square feet, which would be comparable in size to the two renovated buildings, would cost $2,540,512 according to 1980 figures.

$$\frac{\text{1980 New School Construction Cost}}{\text{1970 New School Construction Cost}} = \frac{\$51.22 \text{ per sq. ft.}}{\$22.60 \text{ per sq. ft.}} = 226\%$$

Therefore, if the percentage of increase remains the same 226 percent through 1990, the same facility would cost $5,741,557. But, if the old buildings were renovated and rented for the ten years (1981-1990), the gross return from the two buildings would be $247,995 per year. The ten-year projection of revenue would be $2,479,950. The total renovation cost would be $1,750,296, therefore the expected revenue should be $729,654 more than the renovation cost, or a 41 percent return on the renovation cost plus retaining a usable school building which could eventually save the taxpayers $5,741,557 in the cost of a new facility.

Summary

The selected Kentucky school district, Pikeville Independent, abandoned two buildings in 1976 which previously housed the high

school (7-12). The population as projected in the City's Comprehensive Plan indicated that 1980-1990 would be a substantial growth period with a 1990 population of 10,700 residents and a student population of 1,969 high school and elementary students compared to a 1980 enrollment of 1,454 students.

Recommendations of the Comprehensive Plan included:

1. Reclassify the present school-grade system so Pikeville Elementary School will serve grades K-5 instead of K-6 and Pikeville High School will serve grades 10-12 instead of 7-12. This would require the establishment of a middle school serving grades 6-9.

2. Acquire a site of a minimum of ten acres for a middle school containing eighteen classrooms and supporting facilities for a minimum capacity of 450 students.

Architectural estimates for renovation of the two abandoned buildings would be $1,750,296 with a rental return over a ten year period of $2,479,950 or a 41 percent return on renovation outlay.

Through renovation the citizens of Pikeville would have two buildings completely renovated and modernized, their investment returned over a ten-year period with a 41 percent return on investment, plus two buildings suitable for occupancy by students when student population demands the additional space, and a savings of nearly six million dollars over new school construction.

Chapter 6

VALIDATION OF GUIDELINE ELEMENTS

This study was undertaken to determine procedural guidelines for the decision making process for school building utilization. In order to determine these practices, certain guideline elements were identified as vital to school building utilization. To insure the validity and reliability of the guideline elements, a jury of experts in the field of school facilities was selected.

Discussion in this chapter will focus on:

1. Identifying the procedural guideline elements for the decision making process in school facilities
2. Selection of the jury of experts in the school facilities field
3. Collection and analysis of jury data

Procedures for Identifying Guideline Elements

Since current literature abounded with school facilities information, guideline elements selected for the study from the review of literature were confirmed through a survey instrument administered to the 181 school districts of Kentucky with 100 percent return and a selected illustration. The guideline elements were abbreviated terms that represented the factors effecting the decision for school facilities utilization discussed in the review of literature. Each guideline element was listed on the rating sheet (Appendix H) with a

brief explanation and the rating code. A total of fifteen guideline elements were identified. These rating sheets were then sent to a panel of experts, the jury, for validation.

Selection of the Jury

The jury of nine, which was arbitrarily selected, included:

1. An architect experienced in school design
2. An insurance and real estate executive with experience as a school board member and board chairman
3. A professor of school plant planning and design
4. A consultant in the area of school plant design
5. A professor of school administration
6. A retired superintendent with experience in bond elections and new school construction
7. A superintendent involved in utilization of abandoned school buildings
8. An assistant superintendent of school plant planning in a major school district of Kentucky
9. A state of Kentucky official with responsibility for school plant planning

A list of potential jurors was compiled and rating sheets with letters of explanation (see Appendix G) were mailed to each. One-hundred percent return was received within fifteen days, and each potential juror became a member of the panel.

Collection and Analysis of Jury Data

Nine responses, 100 percent, were received from the panel of jurors. As the individual rating sheets were received, a numerical designation was made for each and a compilation of all scores was made. A mean score for each guideline element was determined. On a scale of 1.0 to 5.0, the range of scores was 3.1 to 4.8, 4.8 being the most desirable end of the range. Population trends and shifts received the highest score and increasingly frequent defeats of bond issues received the lowest score. (Table 12)

The guideline elements were arrayed by mean scores (see Appendix I). Elements considered most significant were:

1. Population Trends and Shifts
2. Birth data
3. Population Projections

Elements considered least were:

1. Increasingly frequent defeats of bond issues
2. Rental revenue from buildings not in school use
3. Cost of remodeling abandoned school buildings as potential rental property

Additional guideline elements suggested by the jurors included:

1. Awareness of costs (insurance, maintenance) of holding buildings in non-use status
2. Projection of construction cost trends
3. Awareness of negative impact upon bond issue elections caused by non-use of existing inventory

Table 12

Rating Sheet Summary

Juror Member / Guideline Element	1	2	3	4	5	6	7	8	9	Total	Mean
Population Trends and Shifts	5	4	5	5	5	5	5	5	5	44	4.8
Birth data	4	4	4	5	5	5	5	4	5	41	4.5
Migration (into and out of school district)	3	5	4	3	5	5	4	5	3	37	4.1
Availability of family housing	5	2	4	3	3	5	4	3	3	32	3.5
Population Projections	5	2	3	5	5	5	5	4	5	39	4.3
Community land utilization	3	1	3	3	4	5	4	3	3	29	3.2
Employment trends	5	3	3	3	5	5	4	2	3	33	3.6
Increasingly frequent defeats of bond issues	4	1	3	4	0	5	4	5	2	28	3.1
Availability of school facilities (during non-school hours) to the community	4	4	4	3	3	5	4	3	2	32	3.5
Cost of remodeling abandoned school buildings as potential rental property	2	5	4	2	3	4	2	5	2	29	3.2
Cost of remodeling abandoned school buildings as potential school facilities to accomodate projected population increases	5	3	4	3	5	5	3	5	2	35	3.8
Future building cost as compared to remodeling cost of abandoned school buildings	5	5	3	3	5	5	3	5	3	37	4.1

Table 12 (continued)

Juror Number	1	2	3	4	5	6	7	8	9	Total	Mean
Guideline Element											
Long range planning in all educational areas, (facilities, curriculum, population, etc.)	5	3	3	5	5	5	5	4	4	39	4.3
Rental revenue from buildings not in school use	2	5	3	2	4	4	4	4	1	29	3.2
Bonding potential	5	2	3	4	5	5	5	5	5	39	4.3

Chapter 7

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The purpose of this study was to investigate school building utilization in Kentucky and make appropriate recommendations for efficient procedural guidelines in the decision making process for future utilization.

The problem had five aims which have been accomplished. They are:

1. To identify practical methods of utilization of school facilities through a review of literature with special emphasis on utilization of abandoned facilities
2. To determine the number and location of public school buildings in the state of Kentucky which were abandoned during the period 1976-80
3. To determine the number and location of school buildings that were only partially used for educational purposes
4. To identify those buildings that were scheduled to be abandoned or phased out of use within the years 1980-82
5. To determine the value of abandoned school property

The data were gathered by means of a questionnaire mailed to the 181 school district superintendents in Kentucky. Ten respondents were contacted by telephone. One hundred eighty-one (100 percent)

responses were received, the returns were analyzed, and the results of the study presented in narrative, tabular, and graphic form. The findings are summarized at the end of Chapter 4.

Conclusions

Based on the review of literature and the analysis of data collected from the 181 superintendents of Kentucky, the following guidelines for the decision making process for future school building utilization were considered significant.

1. Population Trends and Shifts
2. Birth data
3. Population Projections
4. Long range planning in all educational areas, (facilities, curriculum, population, etc.)
5. Bonding potential
6. Migration (into and out of school district)
7. Future building cost as compared to remodeling cost of abandoned school buildings
8. Cost of remodeling abandoned school buildings as potential school facilities to accomodate projected population increases

Guidelines considered significant were arrayed in the top one-half of guideline rating sheet by the nine jurors.

Recommendations

The following recommendations are based upon the review of the literature and the findings of this study:

1. There is a need for carefully coordinated planning of educational facilities with other public or private agencies. The apparent overlap in services provided by the agencies needs to be coordinated when excess facilities are available. There is also a need to set priorities for reductions when necessary.

2. Enrollment projections should include the following factors: population characteristics, land utilization, birthrate data, migration, and to a lesser extent, employment trends.

3. Abandoned school buildings should be maintained for community use with possibilities of returning them to the mainstream of public education, if and when student population demands.

4. Careful study should be made by the school districts, involving the general public, when seeking alternative uses for vacant or unused facilities. The problems associated with disposal of facilities are difficult to accept, but they are somewhat less difficult to accept when the public is involved.

5. The State Department of Education should study the possibility of permitting capital outlay funds to be used for renovation of abandoned school buildings in order to up-grade their condition to meet fire code and handicap regulations. Renovated buildings would be more desirable in the private sector as rental or leased space and would recoup the investment of renovation.

6. Additional research is needed to determine the process school districts should follow in dealing with abandoned school buildings.

BIBLIOGRAPHY

BIBLIOGRAPHY

A. BOOKS

Castaldi, Basil. Educational Facilities: Planning, Remodeling, and Management. Boston: Allyn and Bacon, Inc., 1977.

EFL. The Schoolhouse in the City. New York: Educational Facilities Laboratories, 1966.

Gardner, Dwayne E. Guide for Planning Educational Facilities. Columbus, Ohio: Council of Educational Facility Planners, 1971.

Ginger, Lyman V. Kentucky School Directory, 1975-1976. Frankfort, Kentucky: Kentucky Department of Education, 1975.

Good, Carter V. ed. Dictionary of Education. 3d ed.; New York: McGraw-Hill, 1973.

Graham, James B. Kentucky School Directory, 1979-1980. Frankfort, Kentucky: Kentucky Department of Education, 1979.

Karan, P. P. and Cotton Mather, eds. Atlas of Kentucky. Lexington: The University Press of Kentucky, 1977.

Kentucky Superintendent of Public Instruction. School Laws of Kentucky, Annotated. Frankfort, Kentucky: Kentucky Department od Education, 1978.

Knezevich, Stephen J. Administration of Public Education. 3d ed. New York: Harper and Row, 1975.

Perceira, Percival E., ed. Dodge Construction System Costs, 1970. New York: McGraw-Hill Information System Company, 1969.

_____. Dodge Construction System Costs, 1980. New York: McGraw-Hill Information System Company, 1979.

B. PERIODICALS

"Beautify the Bedraggled, or How They Recycle Space to End Up With Nice Schools." American School Board Journal, August, 1973.

Brooks, Andree. "Sharing: A Solution to Excess Space?" Teacher, 96:59, February, 1979.

Brubaker, C. William. "What to Do With Surplus School Space." American School and University, 52:36+. February, 1980.

Cass, James. "Recycling Surplus School Buildings," Saturday Review, 2:51, June, 1975.

Conkshaw, Peter A. "Skyrocketing Construction Cost Force Curtailing of Building Examination Plans." American School and University, 43:16-17, March, 1971.

Conrad, A. T. "Wider Use of Schools: Community Participation." Education Canada, 13:4-8, December, 1973.

"Coping With Declining Enrollments." School Business Affairs, 43:149-151, July, 1977.

Davis, B. Glenn and E. Norman Sims. "Educational Accountability and the Inadequate Utilization of Facilities: Is Adult and Continuing Education the Answer." Adult Leadership, 25:172, February, 1977.

Fredrickson, John H. "How to Make Old Buildings Meet New Needs." American School and University , 47:37-41, September, 1974.

Educational Facilities Laboratories. "New Ways to Beat the High Cost of School Construction." Urban Review, 5-6:20-44, 1973.

_____. "Reusing Empty Schools." American School and University, 49:22-23, December, 1976.

_____. "School Renewal: Recycling Old Space." American School and University, 44:18-19+, June, 1972.

Eisenberger, K. E., and T. E. Jasik. "Empty Classrooms are Becoming Empty Schools: the Latest Blight on America's Educational Harvest." Lutheran Education, 113:92-96, November/December, 1977.

Elam, Stanley, ed. "Ways of Dealing With Enrollment Decline," Phi Delta Kappan 60:1:20, September, 1978.

Gillespie, Tim. "The Question: To Raze or to Restore?" American Education, 14:6-10, August/September, 1978.

Gore, Harold B. "Declining Enrollment and Options for Unused Space." NASSP Bulletin, 60:92, May, 1976.

Graves, Ben E. "How to Turn Old or Empty or Obsolete School Space Into Really Usable Space." American School Board Journal, April, 1975, p. 50.

Hansen, R. "Preserving the Past and Building for the Future." School Management, 19:8-13, February, 1973.

Hickey, M. E. "Here's How to Prevent Closed Schools From Becoming Empty Buildings." American School Board Journal, 166;28-29. February, 1979.

Hill, Fredrick W. "Economic Crunch Gives Reprieve to Many School Buildings." American School and University, 43:10+, July, 1971.

Knezevich, S. J. "Implementing Accountability Systems." New Directions for Education, 1:1, Spring, 1973.

Lessinger, Leon M. "Accountability: Present Forces and Future Concerns." New Directions for Education. 1:1, Spring, 1973.

McBride, Robert H. "Where Will the Money Come From? Financing Education Through 1980-1981." Phi Delta Kappan, 58;248-249+, November, 1976.

Maguire, John W. "Political Techniques in School Bond and Millage Election." School and Society, December, 1971, pp. 514-515.

Pasnik, M. "Are You Prepared for Declining Enrollments." American School and University, 51;65, March, 1979.

Passantino, Richard J. "Community/School Facilities: The Schoolhouse of the Future." Phi Delta Kappan, 56:306-309, January, 1975.

Sargent, Cyril G. "Fewer Pupils, Surplus Space: The Problems of School Shrinkage." Phi Delta Kappan, 56:352-357, January, 1975.

Savitt, Robert F. "Utilization of Surplus School Buildings." NASSP Bulletin, 61:31-34, March, 1977.

"Should We Renovate, Remodel, or Demolish?" American School and University, 45:18-20+, March, 1973.

"Ways of Dealing With Enrollment Decline." Phi Delta Kappan, 60: 20-25, September, 1978.

C. OTHER WORKS

Ciochon, Francis Victor. "The Present Condition and Potential Uses for Abandoned Public School Buildings in Florida," PhD dissertation, The University of Mississippi, 1971.

Clarke, Stephen J. Recycling School Facilities. (Summary of a Conference of the New England School Development Council), U. S., Educational Resources Information Center, ERIC Document ED 100 027, March, 1974.

Doane, Harold. Personal Interview. Frankfort, Kentucky, June 2, 1980.

Educational Facilities Laboratories. Surplus School Space; Options and Opportunities. U. S., Educational Resources Information Center, ERIC Document ED 126 614, July, 1976.

EFL. The Secondary School: Reduction, Renewal, and Real Estate. U. S., Educational Resources Information Center, ERIC Document ED 131 558, 1976.

Hambley, W. C. Comprehensive Plan, Pikeville, Kentucky. Pikeville: Colloredo Associates, 1977.

Hickey, Mike E. Closed Schools--Open Doors. U. S., Educational Resources Information Center, ERIC Document ED 173 914, April, 1979.

Lieberman, Rachel Radlo. Urban Educational Facilities Options: If It Can Be Done in New York City, It Can Be Done Anywhere. U. S., Educational Resource Information Center, ERIC Document ED 065 934, March, 1972.

Marcum, Steve. Personal Interview. Frankfort, Kentucky, April 15, 1980.

Perry, Charles E. The First Thousand Days. U. S. Educational Resources Information Center, ERIC Document ED 071 592, July, 1972.

Steele, Marilyn. Declining Enrollments: Problem or Opportunity? U. S., Educational Resources Information Center, ERIC Document ED 108 392, February, 1975.

Thomas, Donald. Five Ways to Save Money With Declining Enrollments, U. S., Educational Resources Information Center, ERIC Document ED 117 831, 1975.

Tiller, Warren Parker, "A Study of the Projected Population of the Pikeville Independent Schools (1976-1985) and Its Relationship to School Facilities." Ed.S. Project, Morehead State University, 1978.

U. S. Superintendent of Documents. Economic Indicators. 95th Congress, 1st Session. Washington: Government Printing Office, January, 1977.

U. S. Superintendent of Documents. Economic Indicators. 96th Congress, 2nd Session, Washington; Government Printing Office, December, 1980.

Wentworth, Frederick A. "Enrollment Projection, Instructional, Non-Instructional Implications and Alternative Uses for Vacant or Unused Facilities in Decreasing Enrollment School District." EdD dissertation, University of Pacific, 1977.

APPENDIXES

APPENDIX A

THE QUESTIONNAIRE

QUESTIONNAIRE

I. The 1979-80 Kentucky School Directory does not list the following schools. Please indicate the present status of these buildings by placing a check in the appropriate box. If there are abandoned school building(s) belonging to your district that are not listed below, please list them and respond to the appropriate questions.

Name of building or school	Condemned not usable	Usable but in need of remodeling	Usable in present condition	Presently being used under different name	No longer belongs to school district	Other reasons

Additional comments:

II. Why were these buildings abandoned?

Name of building or school	Replaced by new structure	Population shift	Unsatisfactory condition of building	Consolidation	Destroyed--fire, wind, hurricane, etc.

Additional comments:

III. What is the monetary value of the abandoned school property(ies)?

IV. What is the current cost of maintaining abandoned school property(ies)?

V. Are there school buildings in the district that are partially used? Yes ___ No ___

VI. Identify the buildings that are partially used and indicate the type of program that is being conducted in these buildings: (use back, if necessary)

NAME OF BUILDING, SCHOOL	TYPE OF PROGRAM				
	Regular educational program	Headstart	Day care center	Community center	Other (describe)

VII. Of the buildings listed in the 1979-80 Kentucky School Directory are there plans to abandon any of these within the next two years? If so, indicate the following:

NAME OF BUILDING, SCHOOL	GENERAL CONDITION OF THE BUILDING TO BE ABANDONED			LOCATION OF BUILDING (NEIGHBORHOOD)	
	Condemned	In need of remodeling	Satisfactory in present condition	White Urban	Negro Rural

VIII. If any of the above buildings are to be phased out or abandoned, does the district have a proposed program to utilize the building?

NAME OF BUILDING, SCHOOL	PROPOSED PROGRAM

APPENDIX B

SAMPLE COVER LETTER SENT TO SCHOOL SUPERINTENDENTS

As part of a doctoral study at East Tennessee State University, Johnson City, Tennessee, I am conducting a study of "The Present Condition of and Potential Uses for Abandoned Public Elementary and Secondary School Buildings in Kentucky." This study is being conducted under the direction of Dr. William Evernden, Professor of Education, East Tennessee State University.

This study is designed to include all school districts in Kentucky; therefore, your response to the enclosed questionnaire is of vital importance to the study. You will notice that I have listed the schools in your particular district as they appear in the 1975-76 and 1979-80 Kentucky School Directory to save you valuable time.

Your response to the questionnaire will be held in strict confidence, and in no manner will you or any specific building in your district be identified with your response.

The results will be made available to you, and I trust that you will complete the questionnaire and return it in the self-addressed, stamped envelope at your earliest convenience. Please return no later than August 15, 1980, if possible.

Thank you for your cooperation.

Sincerely,

Warren P. Tiller
Doctoral Candidate

APPENDIX C

SAMPLE FOLLOW-UP LETTER SENT TO SCHOOL SUPERINTENDENTS

The response thus far has been extremely good to my questionnaire concerning "The Present Condition of and Potential Uses for Abandoned Public Elementary and Secondary School Buildings in Kentucky." This study is designed to include all school districts in Kentucky, and your response is of vital importance.

I am enclosing another questionnaire in the event that the original has been misplaced.

Thank you for your interest and response.

Sincerely,

Warren P. Tiller
Doctoral Candidate

Enclosure

APPENDIX D

SAMPLE SECOND FOLLOW-UP LETTER SENT TO SCHOOL SUPERINTENDENTS

I have received an eighty-two percent response to my questionnaire concerning "The Present Condition of and Potential Uses for Abandoned Public Elementary and Secondary School Buildings in Kentucky." This study is designed to include all school districts in Kentucky, and your response is of vital importance. Even if your school district does not have abandoned school buildings nor plans to abandon any during the next two years, your response is necessary to help make this study complete.

I am enclosing another questionnaire in the event that the original has been misplaced.

Thank you for your interest and response.

Sincerely,

Warren P. Tiller
Doctoral Candidate

Enclosure

APPENDIX E

SAMPLE STATE DEPARTMENT FOLLOW-UP LETTER SENT TO NINETEEN SUPERINTENDENTS

COMMONWEALTH OF KENTUCKY

Department of Education

FRANKFORT 40601

September 30, 1980

Mr. William J. Lacefield
Superintendent
Shelby County Public Schools
Shelbyville, Kentucky 40065

Dear Mr. Lacefield:

Mr. Warren P. Tiller has requested that our office assist him in obtaining a response to the enclosed questionnaire. As you know from earlier correspondence, Mr. Tiller is a doctoral candidate at East Tennessee State University and is using the information obtained by the questionnaire in the preparation of his dissertation. This is a worthy objective. Our office has a need for this same information on a state-wide basis. Presently, discussions are being held by a number of various bureau staff relative to verifying this type of information when the Administrative Services Unit conducts their facilities survey in cooperation with local personnel. Therefore, if Mr. Tiller is successful in obtaining this information for his dissertation he will also be helping the Department of Education in updating their files relative to school facilities in the Commonwealth. I respectfully request and thank you in advance for any assistance you or some other professional member of your staff can give Mr. Tiller in his effort to complete the study.

The situation could very well exist in your school system that you do not have any property that falls in the abandoned category. Therefore, a mere indication of this fact on the form would satisfy the requirements for his study and hopefully enable him to obtain a 100 percent participation.

Please find enclosed along with the questionnaire a stamped self-addressed envelope for your use.

Sincerely,

Steve B. Marcum, Director
Division of Buildings and Grounds

SBM:jsm
Enclosures

cc: Mr. Warren P. Tiller

APPENDIX F

RENOVATION COST ESTIMATE

JAMES A. ELLIS & ASSOCIATES
ARCHITECTS
[illegible] COLLEGE ST., P.O. BOX 736, PIKEVILLE, KENTUCKY, 41501 (606) 432-6200

October 6, 1980

Board of Education
Pikeville Independent School District
Pikeville, Kentucky 41501

RE: Renovation Of Old Pikeville High School Buildings

Gentlemen:

Attached is an estimated cost of renovation of the former Pikeville High School buildings, including a separate cost breakdown related to the main building as well as Wright Hall. In my opinion, with the exception of the former library portion of Wright Hall, 100% of the square footage in each building can be economically restored, if the Board so desires.

The cost figures on the attached estimates reflect complete restoration to "new condition". It is presumed that all plumbing, electrical, and heating systems will be abandoned, removed, and completely replaced. As well, it is presumed that all floor, ceiling, and wall finishes will be installed "from scratch". It is feasible for a less extensive and expensive degree of renovation to be utilized. However, I feel that it is desirable at this time to examine the worst budgetary situation which could exist and make decisions relative to that situation.

The proposals, presented in site plan form, cover a range of alternatives, and indicate the amount of parking which could be generated with each alternative.

In this presentation, it is our intent not to make decisions regarding the Board's future actions, but to collect and present information in such a manner that the Board can make economically sound decisions.

If any of the enclosed information needs clarification, do not hesitate to contact us. We look forward to assisting you with your future plans.

Sincerely,

James A. Ellis,
Registered Architect

JAE/jw

MAIN BUILDING
BASE ESTIMATE OF SYSTEM COST/SQ. FT.
(REFER TO - BUILDING TYPE: ELEMENTARY SCHOOLS)

BUILDING SYSTEM	RENOVATION COST SQ. FT.	SAVINGS OVER NEW CONSTRUCTION SQ. FT.
FOUNDATIONS	----	1.91
FLOORS ON GRADE	----	2.92
SUPERSTRUCTURE	----	9.97
ROOFING	0.48	----
EXTERIOR WALLS	----	3.63
PARTITIONS	----	3.93
WALL FINISHES	2.47	----
FLOOR FINISHES	1.83	----
CEILING FINISHES	2.21	----
CONVEYING SYSTEMS	0	0
SPECIALTIES	1.84	----
FIXED EQUIPMENT	3.43	----
HVAC	5.74	----
PLUMBING	3.98	----
ELECTRICAL	5.92	----
$/SQ. FT.	$27.90	$22.36

MAIN BUILDING
APPROX. 31,000 SQ. FT.

Base Cost 31,000 sq. ft. X $27.90/sq. ft.	=	$ 864,900
Partial Gutting Allocation ($2.00/sq. ft.)	=	62,000
Mortar Joint Repointing Allocation	=	35,000
Glazing Allocation	=	70,000
Sub-Total	=	$ 1,031,900
10% Contingency (See Explanation)	=	103,190
Total Estimated Cost	=	$ 1,135,090

Total Estimated Cost/sq. ft. = $\frac{\$1,135,090}{31,000}$ = $36.62/sq. ft.

$\frac{\text{Renov. Cost}}{\text{New Cost}} = \frac{\$36.62}{\$51.22} = 71\%$

WRIGHT HALL
BASE ESTIMATE OF SYSTEM COST/SQ. FT.
(REFER TO - BUILDING TYPE: OFFICE BUILDING)

BUILDING SYSTEM	RENOVATION COST SQ. FT.	SAVINGS OVER NEW CONSTRUCTION SQ. FT.
FOUNDATIONS	----	2.84
FLOORS ON GRADE	----	2.22
SUPERSTRUCTURE	----	11.87
ROOFING	0.13	----
EXTERIOR WALLS	----	7.58
PARTITIONS	----	4.09
WALL FINISHES	2.91	----
FLOOR FINISHES	2.97	----
CEILING FINISHES	2.19	----
CONVEYING SYSTEMS	0	0
SPECIALTIES	1.52	----
FIXED EQUIPMENT	0	0
HVAC	7.07	----
PLUMBING	2.85	----
ELECTRICAL	3.59	----
$/SQ. FT.	$23.23	$28.60

WRIGHT HALL
APPROX. 18,600 SQ. FT.

Base Cost 18,600 sq. ft. X $23.23/sq.ft.	=	$ 432,078
Partial Gutting Allocation ($2.00/sq. ft.)	=	37,200
Glazing Allocation	=	42,000
Library Demolition & Removal	=	18,000
Exposed Wall Enclosure	=	30,000
Sub-Total	=	559,278
10% Contingency (See Explanation)	-	55,928
Total Estimated Cost	=	$ 615,206

Total Estimated Cost/sq. ft. = $\frac{\$615,206}{18,600 \text{ sq. ft.}}$ = $33.08/sq. ft.

$\frac{\text{Renov. Cost}}{\text{New Cost}} = \frac{\$33.08}{\$58.84} = 56\%$

CONTINGENCY EXPLANATION

The previous cost figures are based on new construction utilizing the most cost-effective combination of labor, equipment and material with the work scheduled in proper sequence to all the various trades to accomplish their work in an efficient manner.

The costs for repair and remodeling work must be modified due to the following factors that may be present in any given repair and remodeling project:

1. Equipment usage curtailment due to the physical limitations of the project, with only hand-operated equipment being used.

2. Material handling becomes more costly due to having to move within the confines of an enclosed building.

3. Large amount of cutting and patching and attempting to match the existing construction is required. It is often more economical to remove entire walls rather than create many new door and window openings. This sort of trade-off has to be carefully analyzed.

4. Matching "existing construction" may be impossible because materials may no longer be manufactured. Substitutions may be expensive.

5. Economies of scale usually associated with new construction may not be present. If small quantities of components must be custom fabricated due to job requirements, unit costs will naturally increase. Job scheduling between trades becomes difficult and subcontractor quotations may reflect the excessive start-up and shutdown phases of the job.

6. Job may be delayed due to unexpected conditions discovered during demolition or removal. These delays ultimately increase construction costs.

7. Piping and ductwork runs are not as simple as for new construction. Wiring may have to be snaked through walls and floors.

All of the above areas can contribute to increased costs for a repair and remodeling project. Each of the above factors should be considered in the planning, bidding and construction stage in order to minimize the increased costs associated with repair and remodeling jobs.

AVERAGE BUILDING COSTS

BUILDING TYPE: ELEMENTARY SCHOOLS

BUILDING SYSTEM	LOW AVERAGE $/SF	% TOT	AVERAGE $/SF	% TOT	HIGH AVERAGE $/SF	% TOT
FOUNDATIONS	$0.98	2.6%	$1.57	3.4%	$1.91	3.7%
FLOORS ON GRADE	2.59	6.9	2.68	5.8	2.92	5.7
SUPERSTRUCTURE	7.75	20.7	8.85	19.3	9.97	19.5
ROOFING	1.22	3.3	1.26	2.7	1.44	2.8
EXTERIOR WALLS	2.52	6.7	3.18	6.9	3.63	7.1
PARTITIONS	3.78	10.1	3.91	8.5	3.93	7.7
WALL FINISHES	1.03	2.7	2.03	4.4	2.47	4.8
FLOOR FINISHES	1.51	4.0	1.83	4.0	1.83	3.6
CEILING FINISHES	1.26	3.4	1.30	2.8	2.21	4.3
CONVEYING SYSTEMS	0.0	0.0	0.0	0.0	0.0	0.0
SPECIALTIES	0.80	2.2	0.89	2.2	1.84	3.6
FIXED EQUIPMENT	2.09	5.6	3.39	7.4	3.43	6.7
HVAC	4.09	10.9	5.52	12.0	5.74	11.2
PLUMBING	3.53	9.4	3.73	8.1	3.98	7.8
ELECTRICAL	4.30	11.5	5.76	12.5	5.92	11.5
GROSS BUILDING COST	$37.45	100%	$45.90	100%	$51.22	100%

AVERAGE BUILDING COSTS

BUILDING TYPE: OFFICE BUILDINGS

BUILDING SYSTEM	LOW AVERAGE $/SF	% TOT	AVERAGE $/SF	%TOT	HIGH AVERAGE $/SF	%TOT
FOUNDATIONS	$2.76	6.3%	$2.83	5.2%	$2.84	4.8%
FLOORS ON GRADE	2.22	5.0	2.20	4.0	2.22	3.8
SUPERSTRUCTURE	10.77	24.4	11.79	21.7	11.87	20.2
ROOFING	0.11	0.3	0.13	0.2	0.13	0.2
EXTERIOR WALLS	3.54	8.0	6.88	12.6	7.58	12.9
PARTITIONS	3.02	6.9	3.71	6.8	4.09	7.0
WALL FINISHES	1.72	3.9	2.64	4.8	2.91	4.9
FLOOR FINISHES	1.48	3.4	2.70	5.0	2.97	5.0
CEILING FINISHES	1.05	2.4	1.99	3.7	2.19	3.7
CONVEYING SYSTEMS	4.03	9.1	4.61	8.5	4.85	8.2
SPECIALTIES	0.42	1.0	0.50	1.0	1.52	2.6
FIXED EQUIPMENT	0.75	1.7	1.96	3.6	2.16	3.7
HVAC	6.42	14.6	6.58	12.1	7.07	12.0
PLUMBING	2.53	5.7	2.58	4.7	2.85	4.8
ELECTRICAL	3.26	7.3	3.34	6.1	3.59	6.2
GROSS BUILDING COST	$44.08	100%	$54.44	100%	$58.84	100%

APPENDIX G

LETTER TO JURORS

April 20, 1981

As a doctoral candidate at East Tennessee State University, I am presently engaged in a study entitled, "The Present Condition of and Potential Uses for Abandoned Public School Buildings in Kentucky." This study is under the direction of Dr. William L. Evernden.

Through a review of literature, a survey of the 181 school districts of Kentucky and a selected illustration, I have identified certain procedural guidelines for decision making for school building utilization that appear vital to school facilities planning.

In order to further validate the elements that appear to be essential to school building utilization, I am requesting a jury of authorities to rate the elements. I would sincerely appreciate your serving on this jury.

Included with this letter are the rating sheets and an explanation of the guideline ratings.

I will be most grateful for your consideration of this request.

Sincerely,

Warren P. Tiller

APPENDIX H

RATING SHEET

RATING SHEET

Instructions for completing rating sheet:

The following pages contain a list of tentative guidelines for decision making for school building utilization. You are asked to give your opinion as to their value by placing a numerical rating to the left of each guideline, according to the code listed below.

Code	Guideline Rating	Explanation of Guideline Rating
5	Essential	A step necessary for efficient use in school facilities planning
4	Highly Significant	A step that is not absolutely necessary but would be of functional value for efficient use in school facilities planning
3	Significant	A step not necessary but would have some functional value for efficient use in school facilities planning
2	Little Significance	A step holding little value even though its presence would not harm efficient use in school facilities planning
1	Not Applicable	A step which would have no value

Rating Code	Guideline Element
_____	Population Trends and shifts
_____	Birth data
_____	Migration (into and out of school district)
_____	Availability of family housing
_____	Population projections
_____	Community land utilization
_____	Employment trends

Rating Code	Guideline Element
_____	Increasingly frequent defeats of bond issues
_____	Availability of school facilities (during non-school hours) to the community
_____	Cost of remodeling abandoned school buildings as potential rental property
_____	Cost of remodeling abandoned school buildings as potential school facilities to accomodate projected population increases
_____	Future building cost as compared to remodeling cost of abandoned school buildings
_____	Long range planning in all educational areas (facilities, curriculum, population, etc.)
_____	Rental revenue from buildings not in school use
_____	Bonding potential

If you wish to suggest additional elements, please list and explain them below. After completing your ratings and suggestions, please return the rating sheets in the enclosed envelope.

Rating Code	Guideline Element	Explanation of Guideline
_____		
_____		

Name of juror _____

Professional activities and accomplishments _____

APPENDIX I

GUIDELINE ELEMENTS ARRAYED BY MEAN(INDEX) SCORES

GUIDELINE ELEMENTS ARRAYED BY MEAN(INDEX) SCORES

Score	Element
4.8	Population Trends and Shifts
4.5	Birth data
4.3	Population Projections
4.3	Long range planning in all educational areas, (facilities, curriculum, population, etc.)
4.3	Bonding potential
4.1	Migration (into and out of school district)
4.1	Future building cost as compared to remodeling cost of abandoned school buildings
3.8	Cost of remodeling abandoned school buildings as potential school facilities to accomodate projected population increases
3.6	Employment trends
3.5	Availability of family housing
3.5	Availability of school facilities (during non-school hours) to the community
3.2	Community land utilization
3.2	Cost of remodeling abandoned school buildings as potential rental property
3.2	Rental revenue from buildings not in school use
3.1	Increasingly frequent defeats of bond issues

APPENDIX J

MEMBERS OF THE JURY

MEMBERS OF THE JURY

Paul Ford Davis

Dr. Davis, professor of Educational Administration, Morehead State University, served as consultant to the Kentucky Department of Education, Division of Buildings and Grounds.

Fred Edmonds

Dr. Edmonds, director of the Center for Professional Development, University of Kentucky, Lexington, Kentucky, directed more than twenty facilities studies. He was considered a foremost authority in the field of school plant planning and served as a consultant throughout the United States.

James Ellis

Mr. Ellis, registered architect and licensed real estate broker, specialized in adaptive use of older buildings.

Paul D. Hinkle

Mr. Hinkle, an insurance and real estate executive, served three terms as school board member, two terms as board chairman. Mr. Hinkle served as a school board chairman during the passage of school bond issues and construction of the Pikeville High School.

Hassell Justice

Mr. Justice, assistant superintendent for buildings and grounds, Pike County, Kentucky, served as advisor for the construction, of, and

remodeling of twelve schools in the Pike County School District. He administered the facilities for the third largest school district in Kentucky.

Steve B. Marcum

Mr. Marcum, well known for his outstanding contributions to school plant planning, served as director, Division of Buildings and Grounds, Kentucky Department of Education, Frankfort, Kentucky. Mr. Marcum also served as a corporate member of the Council of Educational Facilities Planners International.

Charles Ross

Dr. Ross served as chairman of the Department of Educational Administration and Supervision, Eastern Kentucky University, Richmond, Kentucky. He served as school superintendent and professor of school plant planning.

Charles E. Spears

Mr. Spears, retired superintendent of the Pikeville Independent School District, served during the campaign and passage of the two bond issues which financed the construction of the Pikeville Elementary and Pikeville High School buildings. Mr. Spears received recognition for the passage of the high school bond issue in 1973, the only school bond issue passed of the fifteen before the voters that year.

John Waddell

Mr. Waddell, superintendent of the Pikeville Independent School District, served in a school system with three abandoned buildings in community use.

VITA

WARREN P. TILLER

Personal Data:

Date of Birth: December 12, 1941
Place of Birth: Hurley, Virginia
Marital Status: Married
Children: Two

Education:

Public Schools, Wise, Virginia
Pikeville College, Pikeville, Kentucky; history, political science, B. S., 1963.
Union College, Barbourville, Kentucky; social studies, M. A., 1968.
Morehead State University, Morehead, Kentucky; educational administration and supervision, Ed.S., 1978.
East Tennessee State University, Johnson City, Tennessee; educational administration, Ed.D., 1981.

Professional Experience:

Teacher, Hellier High School, Hellier, Kentucky, 1963-1965.
Teacher, Pikeville High School; Pikeville, Kentucky, 1965-1967.
Instructor, Williamson Branch of Marshall University, Williamson, West Virginia, 1968-1971.
Principal, Pikeville High School; Pikeville, Kentucky, 1971-1976.
Instructional Supervisor, Pikeville Independent Schools; Pikeville, Kentucky, 1976-1981.

Research/ Publications:

Tiller, Warren P. "Needed a Learning Model For the New Student in Higher Education," The Communicator, Johnson City, Tennessee: The Graduate School, East Tennessee State University, Winter, 1978.

Hauff, Albert C. and Warren P. Tiller. A Researcher's Guide to the Library. Johnson City, Tennessee: Department of Education, East Tennessee State University, 1978.

Tiller, Warren P. "A Study of the Projected Population of the Pikeville Independent Schools 1976-1985, and Its Relationship to School Facilities," Education Specialist Project, Morehead, Kentucky: Morehead State University, 1978.

Research/ Publications (continued)

Turkett, A. Keith and Warren P. Tiller. "An Assessment of the Moral, Spiritual and Religious Environments of the Holston United Methodist Conference Colleges," Johnson City, Tennessee: Department of Education, East Tennessee State University, 1978.

Tiller, Warren P. "The Present Condition of and Potential Uses for Abandoned Public School Buildings in Kentucky," Doctoral Dissertation, Johnson City, Tennessee: East Tennessee State University, 1981.

Honors and Awards:

Who's Who in Kentucky, 1974.
Kentucky Association of School Administrators' Scholarship Award, 1976.
Doctoral Fellowship Recipient, East Tennessee State University, Johnson City, Tennessee, 1977-78.